

Air Quality Monitoring in Chippenham

1. Purpose of the Report

- 1.1. To report on air quality monitoring in Bath Road, Chippenham, from November 2005 to February 2006.

2. Recommendations

- 2.1 It is **recommended** that the Committee note the findings of the report.

3. Links to the corporate/business area objectives

- 3.1. To safeguard and enhance the assets and resources of North Wiltshire and the wider community.

4. General Background Information

- 4.1 The junction at The Bridge Centre, Bath Road, Chippenham, was highlighted in the Updating and Screening Assessment (USA) Report submitted to DEFRA in 2003 as being possibly the busiest junction in the district in terms of traffic flows converging at one point.
- 4.2 Whilst we have historically monitored in this area for Nitrogen Dioxide using a passive diffusion tube throughout the year, it was decided to carry out continuous monitoring for three winter months when traffic pollution would be at its worse. Each major town in North Wiltshire is subject to such monitoring on a cyclical basis.
- 4.3 A monitoring unit was positioned roadside at the Bridge Centre, Bath Road, Chippenham, measuring continuously for Nitrogen Dioxide (NO₂) and Particulates (PM₁₀) which are the most common traffic related pollutants.
- 4.4 The monitoring concluded that, from measured concentrations, estimated annual means were below the standards and objectives set by the Government:

Annual Mean-Equivalent Nitrogen Dioxide and PM₁₀ Concentrations at the Bridge Centre, Bath Road, Chippenham

	NO ₂	PM ₁₀
	Annual Mean (ug/m ³)	Annual Mean (ug/m ³)
Calculated from the measurements	39	22
Statutory Objective	40 (2005)	40 (2004)

Whilst the NO₂ annual mean is predicted to marginally meet the annual mean objective, it should be noted that these concentrations were measured between 1 - 5 metres of the road. In order to put the concentrations into context however, regarding public exposure, the diffusion tube measured annual mean concentration is 31 ug/m³ and this is measured approximately 8 metres from the road which is more representative of where residential premises are.

- 4.5 There are short-term objectives for both pollutants which have also been comfortably met.

The technical report to explain the measurements and objectives in more detail is attached in Appendix 1.

5. Financial Implications

- 5.1 The cost of carrying out such detailed monitoring is approximately £5,000 and is contained within the Environmental Health budget.

6. Community and Environmental Implications

- 6.1 Measurements were obtained in accordance with recommended protocol in order to assess worst case public exposure. This demonstrated that the air quality is "good" when concentrations were compared to Government objectives.

7. Equalities and Diversity Implications

- 7.1 There are no equal opportunities implications arising from this report.

8. Human Resources Implications

- 8.1 There are no human resources implications arising from this report.

9. Legal Implications

- 9.1 There are no legal implications arising from this report.

Documentation used in the preparation of this report:

Appendix 1: Air Quality Monitoring at the Bridge Centre, Chippenham, November 2005 - February 2006.

REPORT FROM THE COMMUNITY AND ENVIRONMENT STRATEGIC MANAGER TO CHIPPENHAM AREA 3 MEETING ON 5TH JUNE 2006.

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