



BMT Cordah Limited
ENVIRONMENTAL CONSULTANCY
AND INFORMATION SYSTEMS

Local Air Quality Management Detailed Assessment Executive Summary

A Report for East Dunbartonshire Council

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Executive Summary

BMT Cordah Ltd has been commissioned by East Dunbartonshire Council to carry out the Detailed Assessment of fine particulates (PM₁₀) from road traffic emissions.

The aim of the study was to determine the risk of exceedence of the National Air Quality Strategy (NAQS) objectives for PM₁₀, and to advise whether an Air Quality Management Area (AQMA) is required for PM₁₀. East Dunbartonshire did not require a Detailed Assessment for nitrogen dioxide (NO₂), however NO₂ has been included in the modelling assessment and any risk of exceedence of the NAQS objectives for NO₂ have been identified.

The three areas assessed are:

- Garscube Switch Roundabout and connecting roads in Bearsden and Milngavie;
- Kirkintilloch Road in Bishopbriggs; and
- the Townhead, Lenzie Road junction in Kirkintilloch.

NO₂ Assessment

Monitoring results for NO₂ across East Dunbartonshire projected forward to 2005 indicated that two sites at Bishopbriggs were close to the NAQS annual mean objective of 40µg/m³. An exceedence of the annual mean objective was predicted for 2005 at the automatic monitor in Bishopbriggs.

Modelled traffic emissions for 2005 indicated that there would be two areas of probable exceedence of the 2005 annual mean NAQS objective for NO₂, one at Bearsden Cross and the other at Bishopbriggs Cross, a further one area of possible exceedence was identified at Kirkintilloch.

No exceedences of the 2005 1-hour mean NAQS NO₂ objective of 200µg/m³ were predicted at any of the assessed locations in East Dunbartonshire

Due to the marginal exceedences predicted by the model, and the fact that automatic monitored NO₂ concentrations were available for 6 months only, it is recommended that the decision to declare an AQMA for NO₂ be taken upon completion of a full year's monitoring and the triplicate diffusion tube co-location study.

PM₁₀ Assessment

Monitoring results for PM₁₀ at the automatic monitor in Bishopbriggs did not indicate an exceedence of either the annual mean or 24-hour mean NAQS objectives of 40 µg/m³ and 50 µg/m³ for 2004. Results projected forward to 2010 indicated that there would not be an exceedence of the 24-hour mean objective for 2010, but that the annual mean would be close to the 2010 annual mean PM₁₀ objective of 18 µg/m³.

PM₁₀ monitoring data was only available for Bishopbriggs therefore no verification of modelled concentrations was possible for the Bearsden and Kirkintilloch areas.

Modelled traffic emissions for 2004 indicated that it was unlikely that there would be exceedences of the 2004 annual mean and 24-hour mean NAQS objective for PM₁₀. The modelled traffic emissions for 2010 indicated that there were several small areas, at locations of relevant public exposure, where an exceedence of the 2010 annual mean NAQS objective for PM₁₀ was predicted. No exceedences of the 24-hour mean PM₁₀ objective for 2010 were predicted by the model at any of the assessed locations in East Dunbartonshire.

Due to the marginal exceedences predicted by the model, and the fact that automatic monitored PM₁₀ concentrations were only available for 6 months at one location, it is recommended that reconsideration of an AQMA for PM₁₀ at Bishopbriggs be taken upon completion of a full year's monitoring. It is also recommended that automatic monitoring for PM₁₀ be considered at Bearsden Cross to verify model results in this area.