



Public Protection Service

Options for an Air Quality Management Area, Herd Street, Marlborough

Summary

Wiltshire Council have been monitoring Air Quality in Marlborough for several years and a recent report (The Detailed Assessment of the Air Quality in Herd Street, Marlborough) states that the UK Air Quality Objectives for the average concentration of the exhaust pollutant, nitrogen dioxide (NO₂) is likely to be exceeded in Herd St / Barn St. The report is on the Air Quality pages of the Wiltshire Council website, www.wiltshire.gov.uk.

As a result of the conclusions made in this report, Wiltshire Council now have a duty to declare an Air Quality Management Area (AQMA) which will need to cover at least the area known to be a problem and are seeking to consult on options for the AQMA within the Marlborough area

Nitrogen dioxide – source and health impacts.

It is known that road vehicles are responsible for over 50% of the emissions of nitrogen oxides in the UK; the proportion in the impacted area in Marlborough is to be established as part of the Air Quality Management Process we are going through.

Nitrogen dioxide has been identified as having a number of adverse health effects, focused around the respiratory system, in both asthmatic and non asthmatic subjects. Short-term exposures can increase reactivity to allergens, such as pollen. In some individuals high levels of nitrogen dioxide can precipitate or exacerbate episodes of asthma. Exposure of children to nitrogen dioxide may increase the risk of respiratory infections and possibly lead to poorer lung function in later life. There is some evidence that use may be linked with impaired lung function.

The Government has set an annual mean objective of 40 ug/m³ to be met by 31.12.2005 and a 1 hour mean objective of 200 ug/m³ not to be exceeded more than 18 times a year by 31.12.2005.

The objectives are set for the protection of human health and have been set purely on the basis of medical and scientific evidence of how the pollutant affects human health.

Pollution Monitoring in Marlborough

We monitor for nitrogen dioxide at 12 sites in the town, 7 in the Herd St. / Barn St. area. To measure the level of NO₂ we use diffusion tubes, a clear plastic tube open at one end and at the closed end a mesh is impregnated with a pollutant absorbing chemical. The diffusion tube collects the pollutant during the exposure period and then is resealed and

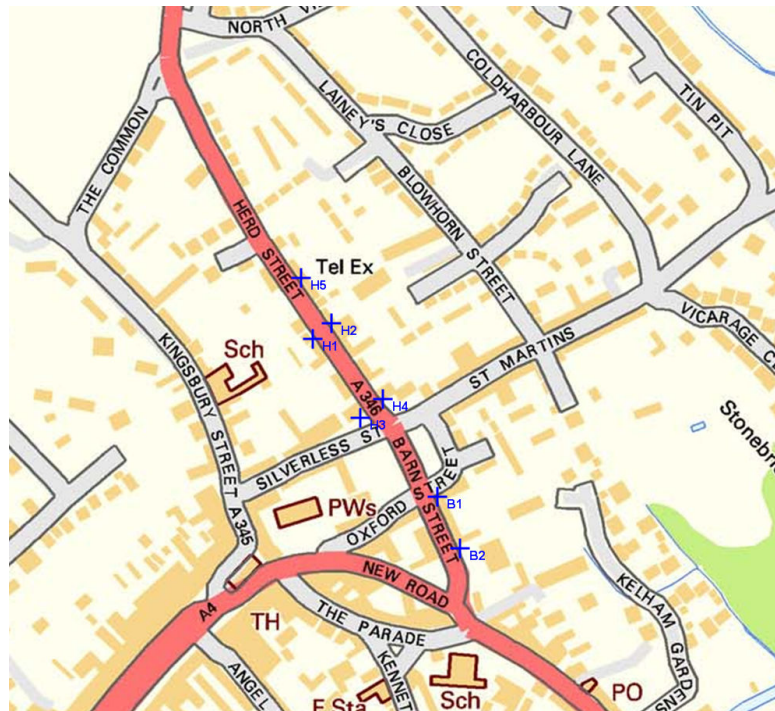
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returned monthly to a laboratory for analysis. The laboratory then assesses the quantity of the pollutant absorbed by calculating the average ambient NO₂ concentration over the exposure period.

Each tube is mounted on a lamp-post or similar structure ensuring that the open end is at the bottom to prevent rainwater collection.

The results from the monitoring carried out in Herd St. / Barn St. in 2009 indicate that the annual mean objective is being exceeded at 4 locations with levels at the other sites close to the objective.

Monitoring Locations in Herd St / Barn St, Marlborough



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What is an Air Quality Management (AQMA) Area ?

An AQMA (Air Quality Management Area) is an area where air pollution is expected to be above the National Air Quality Standards and where people could be exposed to air pollution. Necessary steps will be identified to reduce the pollution in these areas wherever possible. Any major development proposed within an AQMA will need to take account of the impact of the proposals upon the quality of the air.

As air quality improves the AQMA may be reduced in size or removed completely.

Introducing the Options for an Air Quality Management Area in Marlborough

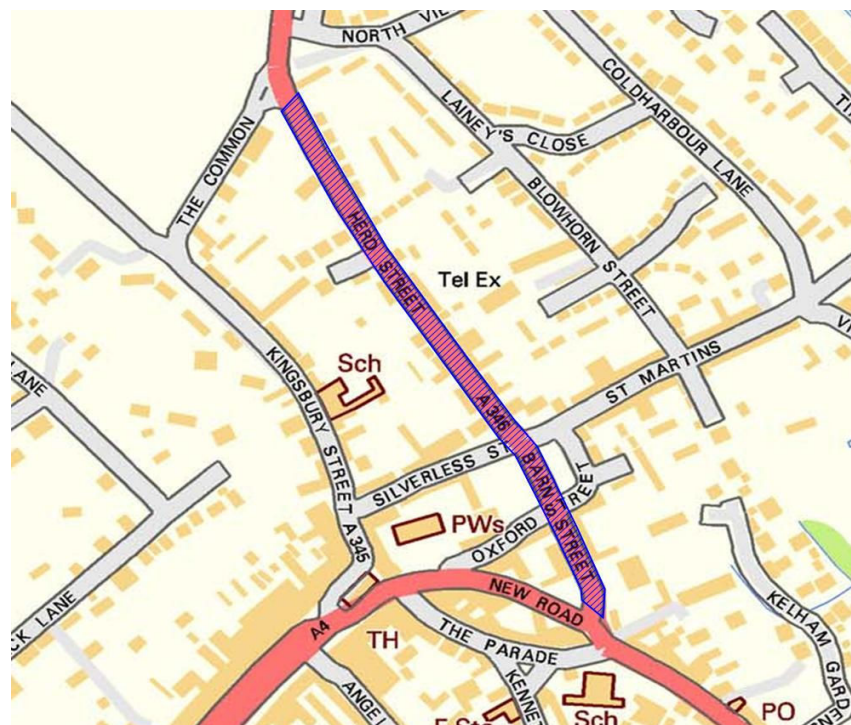
While the air quality problems in Herd Street / Barn Street are known and monitoring is established, there is concern regarding levels of pollution in other areas of the town and so we are suggesting three alternatives for the AQMA within Marlborough and to consult with residents as to the best option for the town.

The final decision of the boundary and the formal designation of the AQMA will be made by the Marlborough Area Board, the decision making body for Wiltshire Council in the Marlborough Area.

Option 1 - Herd Street / Barn Street AQMA

It is known that the Air Quality will exceed the Air Quality Standards for NO₂ throughout the highlighted area, the zone of exceedence. Adoption of Option 1 will cover our statutory duty in respect of this zone.

However, further monitoring in Marlborough is ongoing and in the future the Air Quality Management Area may need to be expanded or a separate one declared which will involve significant extra work and introduce further time delays.



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Option 2 – Marlborough Main Roads AQMA

Option 2 is limited to the known area of exceedence in Herd Street and the major roads feeding traffic towards Herd Street, the A4 and the A338 south of Herd Street. The proposed AQMA thus covers all of option 1 plus the A4 east to the Elcot Lane junction and west to the town hall. The A338 to the south of Marlborough would be included as far as the roundabout with the new industrial estate.

An extended AQMA is likely to cover any further Air Quality problem hotspots in the town and will benefit us if new problem areas be identified as the lengthy reporting procedure will not be required. It should be noted that the monitoring of the air quality in the High Street over the past 15 years indicates that it is not likely to be a problem area.

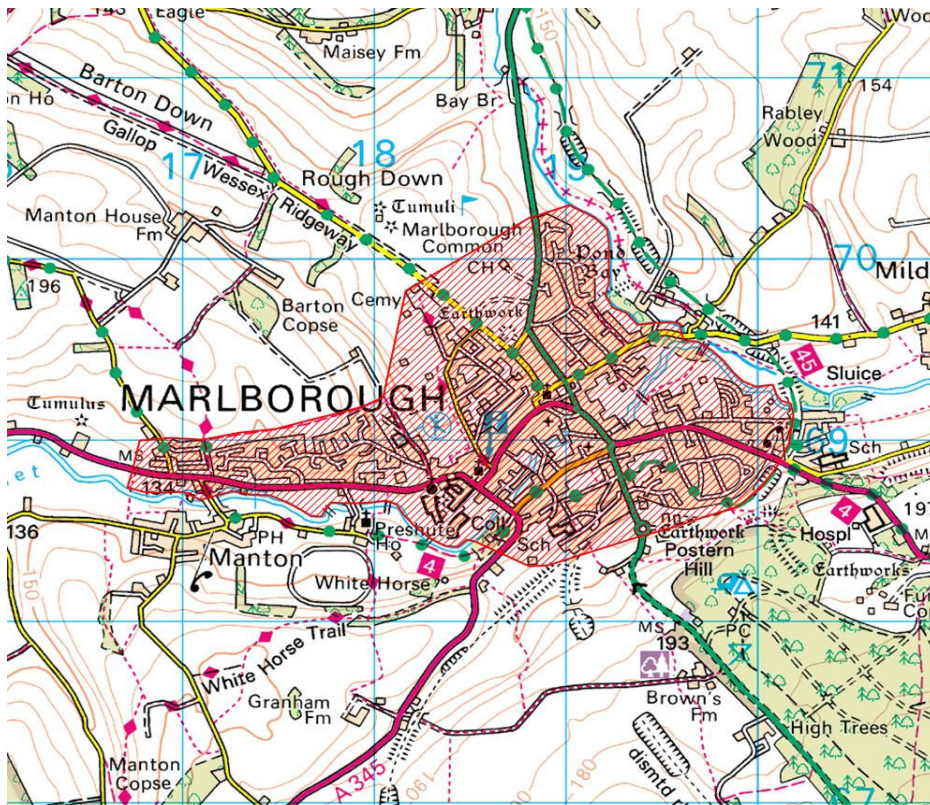


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Option 3 – Marlborough AQMA

Option 3 is a blanket AQMA for the main residential area of the town. This mirrors a method used in other areas – Tewkesbury and Salisbury for example.

Adoption of this option for the AQMA will remove the lengthy reporting stage should any further air quality problems be found within the town.



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The procedure following the declaration of an Air Quality Management Area

Once an AQMA has been declared the Council is required to complete a Further Assessment of the Air Quality within 12 months. This is aimed at confirming the problem; to suggest the improvement in air quality that will be necessary and to clarify where the pollution is actually coming from.

The Further Assessment will provide useful information for the next stage in the process, the development of the Air Quality Action Plan (AQAP), and assist in the targeting of appropriate measures.

The Action Plan will essentially set out how the local authority will use its powers and also work in conjunction with other organisations to improve the air quality in the problem area. This report needs to be produced within 18 months of the declaration of an AQMA.

Comments

Please forward any comments you have regarding the proposed options for an Air Quality Management Area within Marlborough to:

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For further information about our Air Quality work please visit the Air Quality pages of the Wiltshire Council Website – <http://www.Wiltshire.gov.uk>