

PROPOSED DECLARATION OF AIR QUALITY MANAGEMENT AREAS (AQMAs) WITHIN WYCOMBE DISTRICT

Cabinet Member: Cllr Julia Adey

Ward(s) Affected: Abbey, Bowerdean, Chiltern Rise, Disraeli, Downley & Plomer Hill, Flackwell Heath & Little Marlow, Marlow North & West, Marlow South East, Micklefield, Oakridge & Castlefields, Ryemead, Sands, Stokenchurch & Radnage, Terriers & Amersham Hill, The Wooburns, Totteridge, Tylers Green & Loudwater.

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PROPOSED DECISION

- (i) To approve in principle the making of Air Quality Management Area orders (AQMAs) for High Wycombe and Marlow, and the amendment of the existing M40 Air Quality Management Area as described in the report and to delegate authority to the Head of Environment in consultation with the Cabinet Member for Environment and District Solicitor to make the necessary orders subject to public consultation as set out in the report.
- (ii) To delegate authority to the Head of Environment to proceed with the preparation of a draft Air Quality Action Plan, to be reported to a future meeting of Cabinet for approval.

Reason for Decision

To ensure that Wycombe District Council works towards its obligations to bring Nitrogen Dioxide pollution levels to below the National Air Quality objectives as required by Part IV of the Environment Act 1995.

Corporate Implications

Legal

1. Wycombe District Council has a statutory duty, under Part IV of the Environment Act 1995, Section 83, to declare Air Quality Management Areas (AQMAs) where exceedances of National Air Quality objectives have been identified. Where an AQMA has been declared there is a consequent duty upon the Council under Section 84 to produce an Air Quality Action Plan, with the intention of working towards bringing pollutant levels back below National Air Quality objectives, within 12 months. This must be produced with the input of various local and national government agencies as well as other local key stakeholders. Where as a result of a subsequent air quality review it appears that the air quality standards and objectives are being achieved, an order can be subsequently varied.
2. The declaration of or amendments to AQMAs can be challenged by way of judicial review, and if this is successful, resulting in the declaration of AQMAs being quashed, and decisions have been made in the meantime based upon the existence of AQMAs, there is a risk that these decisions could be challenged too. However, officers are confident that the Council has endorsed

and followed the Local Air Quality Management Policy Guidance (PG16) 2016 fully and therefore has already minimised the risk of any successful challenge.

Financial

3. The costs are contained within the current service budgets.

Executive Summary

4. Once an AQMA has been declared, Wycombe District Council is required, by Section 84 of Part IV of the Environment Act 1995, to produce an Air Quality Action Plan designed to bring pollutants below national air quality objectives. This will require the input of multiple departments within the council, as well as the input of external agencies.
5. There is strong possibility that Council policies will have to be amended or created to reflect, and support the aims of, the introduction of new and amended AQMAs.
6. Air Quality Action Planning may result in many initiatives that will be taken up by Wycombe District Council, along with our strategic partners, and could include traffic calming measures, green travel plans, installation of electric vehicle charging points, introduction of cycle lanes and work to improve the emissions of the bus and taxi fleet amongst many more.
7. The declaration of the AQMAs should not result in any significant staffing implications. Though air quality, specifically within the AQMAs, will likely become a material consideration for various departments within the council, it is not expected that this will result in any significant resource pressures.
8. Exceedances for Nitrogen Dioxide have been found to exist along arterial and busy road routes through High Wycombe and Marlow. An area that contains these exceedances has been mapped as the proposed AQMAs for both towns. In addition, a new area has been mapped for exceedances along the M40 corridor. This results in a reduced area from the existing declared AQMA, as pollution levels have been found to have improved along the motorway.

Sustainable Community Strategy/Council Priorities - Implications

9. Air Quality is a material consideration for development control. The declaration of AQMAs will give extra weight to any decisions regarding air quality in those areas. Furthermore the requirement for the council to produce an Air Quality Action Plan following the declaration of AQMAs will inevitably oblige the council to adopt or amend policies to reflect the need to reduce Nitrogen Dioxide in those areas. It is expected that various departmental policies will be affected.
10. This work supports the Council's Corporate Plan priorities of people, place and pounds.

Background and Issues

Local Authority Duties

11. Under Part IV of the Environment Act 1995 district councils must “from time to time” review and assess air quality within their area. The results of this review and assessment should be set out in an Annual Status Report (ASR).
12. When as a result of the review and assessment that it has carried out, it appears that any of the Government’s air quality objectives as set out below are not being achieved the council is required to declare an AQMA. The District Council may amend or revoke an area as appropriate in the light of subsequent reviews.
13. Once an AQMA has been designated the district council should prepare an Action Plan that sets out how it will achieve the air quality standards or objectives for the area that it covers. The District Council should provide information on the timescales for the achievement of measures. The Action Plan should be in place within 12 months of the district council identifying the need for one.
14. The District Council should consult on its Action Plan, and is expected to make a copy of the Plan and ASR freely available for public inspection – e.g. on their website.
15. In accordance with the Council’s duties under Section 82 of Part IV of the Environment Act 1995, Wycombe District Council assesses the air quality at 54 sites (48 in 2016) using diffusion tubes. Most tubes are located in areas of concern, such as Wycombe and Marlow town centres and arterial roads servicing those areas. These are installed and collected on a monthly basis and are sent for analysis at an accredited laboratory. This enables the council to obtain monthly and annual mean concentrations of Nitrogen Dioxide (NO_2) at these sites. In addition, Wycombe District Council has two continuous monitoring stations which give us hourly mean concentrations which can be viewed remotely on the Air Quality England website. These stations are located adjacent to Marlow Hill within the grounds of Abbey School and adjacent to the M40 in Stokenchurch.

National Air Quality objectives for NO_2

16. $200 \mu\text{g}/\text{m}^3$ Hourly mean – Not to be exceeded more than 18 times in a year
17. $40 \mu\text{g}/\text{m}^3$ Annual mean
18. Wycombe District Council concentrates on identifying exceedances of the $40 \mu\text{g}/\text{m}^3$ Annual mean objective as previous monitoring has found the $200 \mu\text{g}/\text{m}^3$ Hourly mean is unlikely to be exceeded within the district.

Current position of Air Quality Management Areas (AQMAs) in Wycombe District

19. Wycombe District currently only has one AQMA located along the M40 corridor with a wider area located at the Handy Cross junction. The area

incorporates a significant number of residential properties and crosses numerous residential gardens.

20. The M40 AQMA was declared in 2001 and was based on a distance of 12 metres either side of the M40 carriageway. In 2002 the declaration was amended to 30 metres either side of the M40 carriageway. In 2010, we received a recommendation from our Air Quality consultant that the declaration be amended to 55-60 metres either side of the M40 carriageway, however this was never adopted.

Modelling of Air Quality within Wycombe District

21. Following the completion of 2016's Air Quality monitoring programme, and forming the view that potential air quality issues are present within the district, Wycombe District Council commissioned Air Quality Consultants Ltd to undertake air quality dispersion modelling in three distinct areas (High Wycombe, Marlow and the M40 corridor). The modelling utilises traffic counts and 3-D street mapping alongside our annual mean NO₂ concentration data to produce predicted NO₂ concentration contours on a street plan.
22. In addition to the above, source apportionment was calculated for the study areas and, in some cases, certain receptors. This gives us details of the % contribution of different modes of transport including, cars, LGVs, Rigid HGVs, Articulated HGVs, buses and motorcycles.

High Wycombe modelling

23. Exceedances of NO₂ objectives were identified in a number of areas along arterial roads. Concentrations were found to be in excess of 40 µg/m³ along West Wycombe Road, London Road, Marlow Hill, Hughenden Road, Crendon Street, Abbey Way and Easton Street. This can be seen in great detail in Figure 3.1 of Wycombe District Council's Air Quality Modelling report (May 2017). In all of these areas cars were the main contributors of NO₂. Crendon Street also had a reasonably high contribution attributed to buses, whereas West Wycombe Road saw a large contribution attributed to LGVs and HGVs.

Marlow modelling

24. Exceedances of NO₂ objectives were identified along Chapel Street, Spittal Street, West Street and High Street. Modelling found the narrow streets of Marlow to cause a canyon effect, effectively hindering the natural dispersion of NO₂. The model goes further in Marlow and predicts exposure levels at both the ground floor and first floor levels. This can be seen in great detail in Figure 4.1 of Wycombe District Council's Air Quality Modelling report (May 2017). As in Wycombe, cars were the main contributors of NO₂.

M40 corridor modelling

25. Exceedances of NO₂ objectives were identified along the whole M40 corridor through Wycombe District. In terms of residential areas that are exposed to exceedances, these are clustered around Handleton Common (Bolter End), London Road and Falcons Croft (Wooburn Moor), Marcroft Road (Stokenchurch) and Bullocks Farm Lane (Wheeler End). This can be seen in

great detail in Figure 5.1 of Wycombe District Council's Air Quality Modelling report (May 2017). Source apportionment was not commissioned for this study area.

26. The area of modelled likely exceedance of Nitrogen dioxide air quality objective has reduced significantly from that of the current declared M40 AQMA which stands at 30 metres either side of the M40 carriageway. It now stands at approximately 14 metres either side of the M40 carriageway.
27. The main reason for the reduced area of likely exceedance is due to improvements in vehicle emissions since the 2002 amendment to the M40 AQMA. European emission limits for newly registered cars have reduced by 60% for petrol and 84% for diesel between 2002 and 2015. As time has passed, older, more polluting vehicles have gradually been replaced by less polluting vehicles.

Recommendations within modelling report

28. Air Quality Consultants Ltd have recommended that two new AQMAs are declared in High Wycombe and Marlow based on areas that exceed $36 \mu\text{g}/\text{m}^3$ to allow for potential modelling uncertainties. They have also recommended that we amend the area of the existing M40 AQMA.

Selection of areas to include in proposed AQMAs

29. The proposed AQMA areas are based upon areas of likely exceedance of national air quality objectives. All areas that were modelled to be above the $36 \mu\text{g}/\text{m}^3$ contour line have been included. In addition where a property has a significant part of its area above the $36 \mu\text{g}/\text{m}^3$ contour line, the property has been included in the proposed area as a whole.

Consultation

30. The statutory consultees for AQMAs have been consulted. These include all neighbouring local authorities, Buckinghamshire County Council, Highways England and the Environment Agency. In addition Wycombe District Council's Procurement, Planning and Estates departments have also been consulted. The purpose of the consultation was to give the consultees an opportunity to comment on the areas included in the proposed AQMAs, describe how they perceive the declaration of AQMAs to affect their departments and to put them on notice that they may be required to contribute to an Air Quality Action Plan.
31. Formal responses were received from Buckinghamshire County Council and Highways England. Acknowledgement of receipt of the consultations was received from the Environment Agency and from Chiltern and South Bucks District Councils, though no formal response.
32. Buckinghamshire County Council response (received from Joan Hancox (Head of Transport Strategy)) – They have no objection to the proposed AQMA areas and welcome the proposal to create an Air Quality Action Plan steering group. A commitment to attend a limited number of steering group meetings has been received.

33. Highways England response (received from Sarah Naylor (Senior Air Quality Consultant)) – Stated that their main interest is in the M40 AQMA. No comments received regarding the proposed areas, though they have declared an interest in assisting with our Air Quality Action Plan.

Options

34. a) *Declare new High Wycombe and Marlow AQMAs as proposed and, amend the existing M40 AQMA as proposed.*

The proposed areas include all properties that have a significant part of their land within the area of modelled exceedance of national air quality objectives. It will allow us to focus any policies on improving the air quality for those that are most affected by high levels of Nitrogen Dioxide. The areas, including a comparison between the existing and proposed amended M40 AQMA, are indicated in a series of 32 A3 sized maps that are available to view in the Group Rooms.

- b) *Declare new High Wycombe and Marlow AQMAs as proposed but leave the existing M40 AQMA in its current form.*

This will give us the greatest area in which to use future policies to improve air quality but will impact properties that no longer lie within an area of modelled exceedance of national air quality objectives. The impact can be both financially and in terms of what can be done with the property.

- c) *Declare new High Wycombe and Marlow AQMAs and, amend the existing M40 AQMA with minor adjustments to the area as proposed.*

A lot of work has already been carried out to identify areas that will benefit from being within the proposed AQMAs. It is recommended that any adjustments are minimal and should only be made with good reason i.e. the use of the area has a significant impact on adjacent areas that have exceedances of National Air Quality objectives.

Conclusions

35. The preferred option is option a);

Declare new High Wycombe and Marlow AQMAs as proposed and, amend the existing M40 AQMA as proposed.

36. This will ensure that all areas of likely exceedance are contained within the AQMAs and focus our action planning and subsequent policies towards bringing those areas to within acceptable levels as set out by national air quality objectives.

Next Steps

37. The proposed timetable;

Autumn 2017 – Public consultation on proposed plans. Head of Environment considers any consultation responses

End of 2017 – Declaration of AQMAs

Start of 2018 – Formation of steering group to draft Air Quality Action Plan

March 2018 – Draft Air Quality Action Plan

October 2018 – Final Air Quality Action Plan brought back to cabinet for approval

Background Papers

38. 2017 Air Quality Annual Status Report (ASR): Wycombe District Council (July 2017)

Air Quality Modelling: Wycombe District Council (May 2017)