

# Crawley Borough Council



**Report to Cabinet  
8 July 2015**

## **Hazelwick Air Quality Management Area**

**Report of the Head of Economy and Environment / PES186**

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### **1. Purpose**

- 1.1 This report seeks Cabinet approval to approve the size and extent of an Air Quality Management Area (AQMA) and to approve the making of an Order designating the defined area.

### **2. Recommendations**

- 2.1 Cabinet is recommended to:
- a) to formally designate the Air Quality Management Area as detailed at Appendix A; and
  - b) Approve the draft Order contained at Appendix B, under the provisions of Section 83(1) of the Environment Act 1995 formally designating the area as an Air Quality Management Area.

### **3. Reasons for the Recommendations**

- 3.1 To enable an air quality action plan to be created for dealing with the source of air pollution in and around Tinsley Lane.
- 3.2 The Environment Act 1995 places a duty on Councils to carry out periodic reviews of air quality and to identify those areas where prescribed air quality objectives for seven pollutants, are being, or are likely to be, exceeded.
- 3.3 Where it has been identified that one or more of the air quality objectives will be exceeded at a location where there is relevant public exposure, Councils have a duty to declare an Air Quality Management Area (AQMA) in that locality following a period of consultation.

### **4. Background**

- 4.1 The Council is required by statute (Section 83(1) The Environment Act 1995) to measure air quality and report the findings on an annual basis to Central Government via the Department of the Environment, Food and Rural Affairs (DEFRA).
- 4.2 The Air Quality Regulations 2000 and Air Quality (Amendment) (England) Regulations 2002 define the Air Quality objectives for certain air pollutants including nitrogen dioxide, fine particles (PM10), benzene, 1, 3-Butadiene, lead, carbon monoxide and sulphur dioxide.

- 4.3 Background measurements have been undertaken at 10 and 11 Tinsley Close for a number of years designed to capture nitrogen dioxide (NO<sub>2</sub>) levels arising from traffic emissions which has shown exceedances of the EU limit for NO<sub>2</sub> (40ug/m<sup>3</sup>) every year since 2010.
- 4.4 Nitric oxide (NO) is mainly derived from road transport emissions and other combustion processes such as the electricity supply industry. Nitric oxide is not considered to be harmful to health. However, once released to the atmosphere, NO is usually very rapidly oxidized, mainly by ozone (O<sub>3</sub>), to nitrogen dioxide (NO<sub>2</sub>), which can be harmful to health. Nitrogen dioxide and NO are both oxides of nitrogen and together are referred to as nitrogen oxides (NOX).
- 4.5 Due to the known error factor that may arise due to the method of using diffusion tubes more precise measurements were undertaken at the above location using equipment owned by West Sussex County Council in 2012 – 2013.
- 4.6 The detailed further assessment indicated that the pollution levels in this area were as high as that indicated by the normal tube monitoring procedure. DEFRA subsequently validated the detailed assessment data and confirmed that an Air Quality Management Area (AQMA) should be declared as prescribed by Section 83(1) of the Environment Act 1995.

## **5. The Effects of Air Pollution on Human Health**

- 5.1 The nature of air pollution has changed over the past 40 years. Emissions of smoke and sulphur dioxide associated with smogs of the past have declined, while the proportion of pollution from vehicles has increased. The health effects of air pollution are still, however, significant. The most recent evidence from the Government's Committee on the Medical Effects of Air Pollution (COMEAP) suggests that some 29,000 deaths per year (4,000 in London alone) are brought forward by exposure to man-made particulate air pollution at current levels.
- 5.2 Health effects are the primary, although not the only, reason for work to improve air quality. In order to be able to assess the effect of air pollutants on health, accurate measurement of personal and population exposure to indoor and outdoor air pollution is necessary. Also, the response of individuals to air pollutants varies widely. Other factors such as smoking, pet ownership and diet may influence the incidence of respiratory disease such as asthma.
- 5.3 As is the case in many fields our knowledge of the health effects of air pollution is developing and current information only represents the best that we know at present. Recent developments and questions that are still being studied include:
- the effects of short term exposure to high concentrations of pollution compared with long term exposure to "normal" concentrations;
  - there is growing evidence that air pollution can actually cause people to develop asthma rather than merely triggering attacks;
  - it is now accepted that nitrogen dioxide (NO<sub>2</sub>) has actual health effects rather than, as has been often thought, acting as a marker for some other pollutant(s); and,
  - the question of which size fraction(s) and which metric(s) for particulate matter are responsible for adverse health effects.
- 5.4 Nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections such as influenza. Continued or frequent exposure to concentrations that are typically much higher than those normally found in the ambient air may cause increased incidence of acute respiratory illness in children. Recent research has also proven a strong link between air pollution and premature deaths

## **6. Information & Analysis Supporting Recommendation**

- 6.1 The historic monitoring and detailed assessment have provided the evidence of annual mean NO<sub>2</sub> in excess of 40 µg/m<sup>3</sup> which requires an air quality management area to be declared.
- 6.2 The development of the North East Sector and associated land identified in the emerging local plan plus the continued success of the Manor Royal Industrial Estate will highly likely lead to an increase in vehicle movements within the proposed air quality management area. It is therefore imperative that a plan of action is developed to tackle air pollution arising from traffic related sources.
- 6.3 The statutory consultation requirements for Local Air Quality management are specified in Schedule 11 of the Environment Act 1995. This requires the Council to consult with a list of statutory consultees on any air quality review and assessment, further assessment of air quality in an air quality management area and on the preparation of an air quality action plan.
- 6.4 An in-depth consultation exercise was undertaken in the process of drawing up the draft area proposed and the responses received were universally positive excepting suggestions that the area should be extended and more account should be taken of a potential second runway being built at Gatwick Airport. The consultation was undertaken through writing to all those people who live within the affected area, via the Council's web pages and through several information releases in the local media. The process was undertaken for over 100 days and key stakeholders were contacted. The data does not show that area should be extended at the present time and care has been taken to map the boundaries of the said area to the nearest major intersections and also within Manor Royal to deal with potential residential developments as a result of changes to the Town and Country Planning General Permitted Development Order. It is nevertheless possible to amend the boundaries and the further detailed assessment discussed above will provide an opportunity to review the order accordingly.
- 6.5 Members have had an opportunity to comment on the proposal via the consultation process and the Ward Members have been contacted directly.
- 6.6 The breakdown of the responses received were as follows:
  - 28 from residents of Crawley
  - 6 from residents of Copthorne
  - 4 from Members
  - 1 from HCA
  - 1 from WSCC
  - 1 from Crawley News

## **7. Proposed Air Quality Management Area**

- 7.1 The map of the proposed boundary for the AQMA is detailed in Appendix A. It consists of areas adjacent to the A2011 Crawley Avenue, Hazelwick Roundabout and Hazelwick Avenue. This incorporates the land and properties bordering the Hazelwick roundabout, both sides of the A2011 Crawley Avenue between junction 9 of the M23 and the Tushmore Roundabout, Hazelwick Avenue between the Hazelwick Roundabout and the Bycroft Way roundabout. The roads listed in the table accompanying the map of the designated area are at Appendix A.

7.2 In relation to the proposed AQMA, the boundary has been drawn up to link all areas of known exceedance where there is 'relevant public exposure' and to facilitate the implementation of measures designed to reduce emissions.

## **8. Air Quality Management Area Order**

8.1 The AQMA will have to be formally designated by means of an Order. A draft Order has been prepared and is included in Appendix B.

8.2 The Order will include a map of the area to be designated which is shown in Appendix A together with a schedule listing all the properties affected. The date the Order shall come into effect will be the date it is officially sealed.

8.3 Once the order has been made there is a legal requirement to publicise it to ensure that the public and local businesses are fully aware of the situation.

8.4 The Order can be amended at a later date if further amendments are required given the ongoing monitoring being undertaken in the concerned areas.

## **9. Next Steps**

9.1 Subject to the declaration of the AQMA the Council will be obliged to carry out a further detailed analysis within the first year and also draw up an action plan to deal with identified pollutants. Section 84(1) of the Environment Act requires authorities to complete a Further Assessment within 12 months of designating the AQMA. The main purpose of the Further Assessment is to provide authorities with an opportunity to supplement the information they have already gathered from their earlier Review and Assessment work.

9.2 The Further Assessment is intended to allow authorities to:

- confirm their original assessment, and thus ensure they were correct to designate an AQMA in the first place;
- calculate more accurately what improvement in air quality, and corresponding reduction in emissions, would be required to attain the air quality objectives within the AQMA;
- refine their knowledge of sources of pollution, so that the air quality Action Plan may be appropriately targeted;
- take account of any new guidance issued by Defra and the Devolved Administrations, or any new policy developments that may have come to light since declaration of the AQMA;
- take account of any new local developments that were not fully considered within the earlier Review and Assessment work. This might, for example, include the implications of new transport schemes, commercial or major housing developments etc., that were not committed or known of at the time of preparing the Detailed Assessment;
- Carry out additional monitoring to support the conclusion to declare the AQMA; Corroborate the assumptions on which the AQMA has been based, and to check that the original designation is still valid, and does not need amending in any way; and
- Respond to any comments made by statutory consultees in respect of the Detailed Assessment.

9.3 There is no statutory time-scale for the completion of the air quality action but policy guidance recommends that authorities aim to complete the action plan within twelve to eighteen months of the AQMA declaration.

## **10. Implications**

### **Legal Implications**

- 10.1 If the AQMA is not declared the Council may be at risk over and above that of other United Kingdom Local Authorities, due to threatened infraction proceedings being taken by the European Union as a result of the Localism Act 2011 concerning an alleged national non-compliance with community air quality standards.
- 10.2 The ambient air quality directive (2008/50/EC) sets levels for pollutants, which must not be exceeded by a specified date. These air quality limit values have been transcribed into UK legislation by virtue of the Air Quality Standards Regulations.
- 10.3 The actions that must be taken by the Council when air quality objectives are or will be exceeded are clearly prescribed by Section 82 of the Environment Act 1995 (EA 95). Failure to comply with the requirements may result in the intervention by the Secretary of State and the possibility of judicial review of the Council's actions. Section 82 EA 95 requires a review to be undertaken by Council as well as an assessment, Section 83 EA 95 requires a further review is undertaken after the making of an AQM
- 10.4 The Localism Act 2011 proposes that central government could require a local or public authority to make a payment in respect of an EU financial sanction imposed on the UK, if it could be shown that that 'acts of the authority may have contributed to the infraction of EU law.' This includes any fine that may be imposed as a result of any failure to meet air quality limit values.

### **Finance**

- 10.5 The Detailed Assessment has been founded on a number of assumptions, including traffic flows, speeds and vehicle mix. The Further Assessment provides an opportunity to explore these assumptions, to make sure they are as accurate and as up to date as possible. This may include commissioning traffic counts to provide a better understanding of local emissions from traffic, and to improve modelling.
- 10.6 A small cost will be incurred for the electrical supply, the cost of consumables and for reinstating the grassed lawn of the private residential house where the trailer housing the analysers will be sited. However, the monitoring equipment itself will be available via Sussex Air who are a consortium to which the Council subscribes already for such purposes.
- 10.7 No additional staff resources will be required.

### **Planning**

- 10.8 The National Planning Policy Framework requires that when dealing with air quality matters planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas.
- 10.9 Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan. This matter has already been accounted for the preparation of the emerging local plan.

## 11. Background Papers

[http://laqm.defra.gov.uk/documents/LAQM-TG-\(09\)-June-14.pdf](http://laqm.defra.gov.uk/documents/LAQM-TG-(09)-June-14.pdf)

<http://planningguidance.planningportal.gov.uk/>

<http://www.crawley.gov.uk/pw/web/PUB236423>

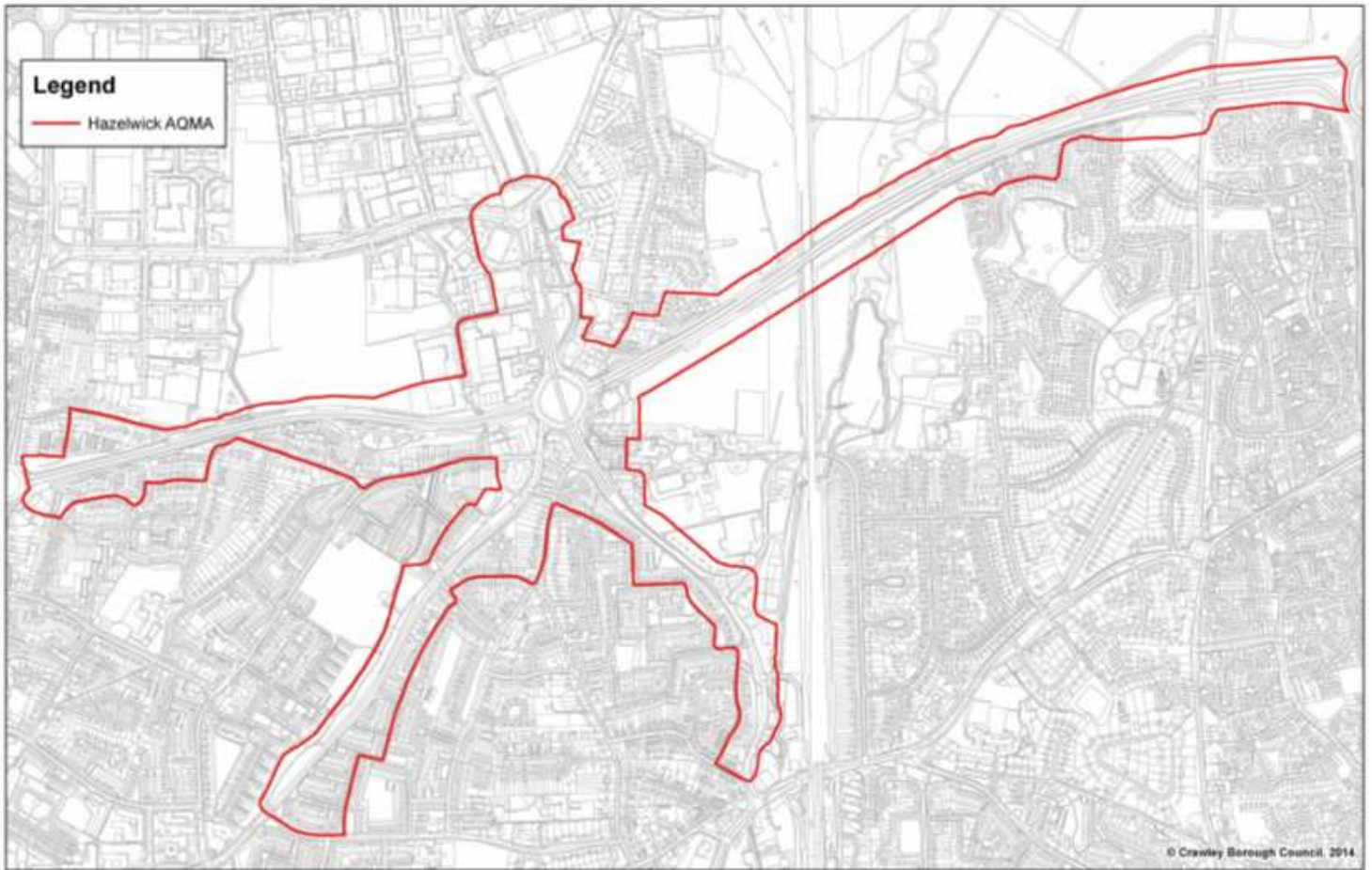
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## Appendix A

### Recommended Air Quality Management Boundary

**Table 1. AQMA ROADS:** Roads within red boundary line shown on the attached plan of the AQMA above

HAZELWICK/NORTHGATE ROUNDABOUT	HERMITS ROAD
A2011 CRAWLEY AVENUE	MAGPIE WALK
A2004 NORTHGATE AVENUE	MAXWELL WAY
BAIRD CLOSE	MILL ROAD
BRAMBER CLOSE	MONKSFIELD
BROOMDASHERS ROAD	NAPIER WAY
BROOKSIDE	NORTH MEAD
BYCROFT ROUNDABOUT	NORTH ROAD
CAPUA COURT	ORIEL CLOSE
CLOVERLANDS	POND WOOD ROAD
CHURCHILL COURT	PUNCH COPSE ROAD
CRAWTERS CLOSE	REDWOOD CLOSE
DALEWOOD GARDENS	SIENA DRIVE
EARLY COMMONS	ST ANNES ROAD
FIRLE CLOSE	ST CATHERINE'S ROAD
FIVE ACRES	ST HILDAS CLOSE
GATWICK ROAD	STEYNING CLOSE
GALES DRIVE	THE BIRCHES
GLENVIEW CLOSE	TINSLEY CLOSE
GRANGE CLOSE	TINSLEY LANE
GRATTONS DRIVE	TINSLEY LANE SOUTH
GREEN LANE	TUSHMORE LANE
HAREWOOD CLOSE	WEST AVENUE
HAZELWICK AVENUE	WOODEND CLOSE
HAZELWICK MEWS	WOODFIELD ROAD
HAZELWICK MILL LANE	WOOLBOROUGH LANE





**Appendix B**

**Model Air Quality Management Order**

**Environment Act 1995 Part IV Section 83(1)**

**Crawley Borough Council**

**Air Quality Management Order**

Crawley Borough Council, in exercise of the powers conferred upon it by Section 83(1) of the Environment Act 1995, hereby makes the following Order.

This Order may be cited/referred to as the Crawley Borough Council Hazelwick Air Quality Management Area and shall come into effect on **9<sup>th</sup> July 2015**

1. The area shown on the attached map in red is to be designated as an air quality management area (the designated area).
  
2. The designated area incorporates:
  - The land and properties bordering the Hazelwick roundabout.
  - The land and properties bordering both sides of the A2011 Crawley Avenue between Junction 9 of the M23 and the Tushmore Roundabout.
  - The land and properties bordering Hazelwick Avenue between the Hazelwick roundabout and the roundabout at Bycroft Way.
  - The Roads listed in the table accompanying the map of the designated area below:  
Table 1. AQMA ROADS
  
3. This Area is designated in relation to a likely breach of the nitrogen dioxide (annual mean) objective as specified in the Air Quality Regulations 2000.
  
4. This Order shall remain in force until it is varied or revoked by a subsequent order.

The Common Seal of Crawley Borough Council was hereto affixed on

the ..... day of..... 2015

.....  
Authorised Signatory

.....  
Authorised Signatory