

FAREHAM

BOROUGH COUNCIL

Report to Public Protection Policy Development and Review Panel

Date **10 March 2015**

Report of: **Director of Community**

Subject: **AIR QUALITY IN THE BOROUGH AND UPDATE ON RESPONSE
TO ANNUAL REPORT SUBMITTED TO DEFRA**

SUMMARY

The mandatory air quality review and assessment process, which commenced in 1998, has resulted in the declaration of two Air Quality Management Areas (AQMAs) in Fareham, one for a section of Gosport Road, Fareham and one for Portland Street, Fareham. Both AQMAs are due to high levels of nitrogen dioxide from vehicular exhaust emissions.

Since the last report to the Panel in September 2014, the Council has submitted to the Department for Environment, Food and Rural Affairs (Defra) an Air Quality Progress Report 2014, which has been approved.

Defra is consulting on Local Air Quality Management (LAQM) which is unlikely to result in any changes to the declaration of AQMAs but may alter the way in which the monitoring results are reported every year and the type of pollutants investigated.

RECOMMENDATION

That the Panel notes the content of this report and the progress that has been made to date in respect of LAQM.

INTRODUCTION

1. The mandatory air quality review and assessment process, which commenced in 1998, has resulted in the declaration of two Air Quality Management Areas (AQMAs) in Fareham, one for a section of Gosport Road, Fareham and one for Portland Street, Fareham. Both AQMAs are due to high levels of nitrogen dioxide from vehicular exhaust emissions.
2. Public Health England (PHE) has to report to the Department of Health on public health outcome indicators, one of which is air pollution. That is, the fraction of all-cause adult mortality attributable to anthropogenic particulate air pollution (measured as fine particulate matter, PM_{2.5}) expressed as a percentage of annual deaths from all causes in those aged 30+. Its report in April 2014 "Estimating Local Mortality Burdens associated with "Particulate Air Pollution" suggests that in 2010, the figure for Fareham was 5.6%, compared to the average for Hampshire County Council of 5.40%.
3. Defra recently consulted on Local Air Quality Management (LAQM) which is unlikely to result in any changes to the declaration of AQMAs but may alter the way in which the monitoring results are reported every year and the type of pollutants investigated. This may result in a requirement for "Particulate Air Pollution" to be investigated. Whilst diesel cars have lower CO₂ emissions than petrol cars, they emit 22 times the amount of particulate matter and 4 times more nitrogen oxides including nitrogen dioxide.

AIR QUALITY IN FAREHAM

4. The current LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas and to determine whether or not mandatory air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an AQMA and prepare an AQAP setting out the measures it intends to put in place in pursuit of the objectives.
5. The annual mean objective for nitrogen dioxide is 40 ug/m³. There are two AQMAs declared in Fareham for nitrogen dioxide, one for part of the Gosport Road, Fareham and one for Portland Street, Fareham. The main source of the elevated nitrogen dioxide levels at the sensitive receptors are cars and heavy goods vehicles at the Gosport Road AQMA and cars and buses at the Portland Street AQMA.
6. The Council has two continuous air quality monitoring stations for nitrogen dioxide, one at the junction of Elms Road and Gosport Road, Fareham and one on Portland Street, Fareham. The monitors accurately monitor the levels of nitrogen dioxide in the AQMAs and the results can be used to assess the impact of any local air quality improvement measures contained in the AQAP.
7. The Council also monitors nitrogen dioxide levels using passive diffusion tubes located around the Borough in nearly 50 locations. These provide monthly and subsequently, annual mean nitrogen dioxide concentrations for all sites. The tubes are now located mainly on the facades of properties to reflect relevant exposure. They are left in place for a month before being analysed by a laboratory for nitrogen dioxide concentrations. They are the most common method of obtaining information on possible hot spots for nitrogen dioxide levels.

8. Both Hampshire County Council and the Council's parking team have been contacted to assess whether or not traffic levels have increased in the last few years in Fareham town centre. Figures for Market Quay car park show little change with between 40000 – 50000 users per month. In terms of permanent traffic counts near the Newgate Lane flyover and close to the Gosport Road monitoring station, it appears that between 2008 and 2014, the traffic flows decreased between Fareham and Gosport by about 7% overall. Although flows decreased from 2008 to 2011, the numbers of vehicles has increased from 2012, by about 1-2%. The recent improvements to the market quay roundabout and the Eclipse Busway and the changes to remove the majority of the buses from the Market Quay roundabout are starting to show a reduction in pollution levels around Portland Street, which shows that despite the traffic levels, the flow has improved.

AIR QUALITY ACTION PLAN (AQAP)

9. Many AQAP improvements actions have now been completed including the opening of the Eclipse busway in April 2012 which has resulted in an 11% increase in bus patronage (250,000 extra bus journeys) across the Fareham-Gosport peninsula; the development of the Quay Street "throughabout"; the provision of a bus lane on Western Way Fareham; the development of bus gates at Yew Tree Drive Swanwick and Western Road Fareham; the publication of an air quality and health leaflet; the provision of two electric vehicle charging points in Fareham and staff taking part in annual sustainable travel challenges. Ongoing improvements to roads such as Newgate Lane and the development of the Stubbington bypass will hopefully reduce the impact on our AQMAs. The plans for a bus-rail interchange at Fareham railway station are in hand as are plans for sustainable travel type banners on newly installed lamp columns along the A32. Finally, the need to provide a bus rapid transit service between Fareham, Welborne and beyond is a matter of high importance.

AIR QUALITY PROGRESS REPORT 2014

10. The Fareham and Gosport Environmental Health Partnership produced an air quality progress report in 2014 as required by the government. The report was approved by Defra and is published on the Council's website.
11. The annual average concentration for nitrogen dioxide at the Gosport Road monitor has been below the objective level of 40 ug/m³ for the last three years, that is, 33ug/m³ in 2011; 35 ug/m³ in 2012 and 34 ug/m³ in 2013. The first whole year annual average concentration for nitrogen dioxide at the Portland Street monitor was 35 ug/m³ in 2013.
12. The monitoring data for 2013 indicated that the annual mean nitrogen dioxide objective was achieved at both monitoring stations and most diffusion tubes in 2013 except for three diffusion tube sites, that is, one in both the AQMAs and one immediately outside the Gosport Road AQMA near Mill Road Fareham. This site has shown exceedences before and Defra is satisfied that no further action needs to be taken at this stage as it is so close to the existing AQMA.
13. Even with a local bias adjustment figure, obtained from triplicate diffusion tubes located at each of the monitoring stations, being used to provide the most accurate reading for the diffusion tubes, the results of these three sites are above the national annual mean objective of 40 ug/m³ and therefore prevent the revocation of the AQMAs. Officers have investigated what other technology is available, that may

confirm or otherwise the accuracy of the results of these tubes and have been informed they are the most accurate means of measuring nitrogen dioxide for this purpose. A review however is being undertaken of the number and location of nitrogen dioxide tubes throughout the Borough.

NATIONAL BREACH OF NITROGEN DIOXIDE LIMITS

14. Not only is Fareham Borough Council exceeding the annual mean objective limit for nitrogen dioxide in a few locations but so is the national government. The European Commission launched infraction proceedings against the UK for breaching the nitrogen dioxide national limit in March 2014. Defra have recently written to all local authorities asking for further information so that the government can update their own national AQAP. This request for information outside the normal reporting process provides an indication of the pressure the government is under to reduce nitrogen dioxide levels.

FURTHER REVIEW OF LOCAL AIR QUALITY MANAGEMENT

15. Defra consulted on proposed changes to LAQM in 2013. These included an option to abolish AQMAs altogether but many organisations criticised the proposals. New plans from Defra were put out for consultation in December 2014 for 6 weeks. Under these proposals AQMAs will be retained; certain pollutants will be removed from the air quality regulations but this will not include nitrogen dioxide; local authorities will be given a new public health role in statutory guidance to work towards reducing emissions of PM_{2.5} (particulate matter with a diameter less than 2.5um in diameter) and certain air quality reports will no longer be required such as detailed and further assessments, updating and screening assessments and AQAP progress reports; the only report that will be required is an Annual Air Quality Improvement Report. The outcome of this consultation and associated guidance is expected later in 2015.

RISK ASSESSMENT

16. Under the Environment Act 1995, Fareham Borough Council must continue to undertake reviews and assessments of air quality, to declare AQMAs as appropriate and action the AQAP in pursuit of achieving the air quality objective for nitrogen dioxide at all locations. Obviously, the government can take appropriate measures to enforce these requirements.
17. The Council is no longer able to apply for air quality grants from Defra for monitoring activities and will have to rely on planning agreements as a means of obtaining funding for the same in the future.

CONCLUSION

18. The Council, subject to funding, will continue to undertake nitrogen dioxide monitoring in the Borough, using both diffusion tubes and the two continuous monitors on Gosport Road and Portland Street, Fareham, respectively.
19. The Council will continue to ensure compliance with the timetable of submissions to Defra in respect of the Air Quality Review and Assessment process under the Environment Act 1995. Subject to the outcome of the latest LAQM review, the Council will submit an appropriate update report to Defra this year based on the 2014 results.

Any comments that the Panel may wish to make in respect of the progress made and actions taken to date can be incorporated into the report prior to it being submitted to Defra.

20. Air quality reports will continue to be reported to the Public Protection Policy Development and Review Panel as appropriate. Air quality reports will also be published on the Council's website together with certain monitoring data and the Council will continue to progress the AQAP developed for both AQMAs through the implementation group with Hampshire County Council and Gosport Borough Council.

Background Papers:

None.

Reference Papers:

Report to the Public Protection Policy Development and Review Panel - 9 September 2014
- Air Quality Update

Defra consultation document:- Improving local air quality management in England
19/12/14 – 30/01/15 <https://www.gov.uk/government/consultations/improving-local-air-quality-management-in-england>

Fareham Borough Council – Local Air Quality Management - Air Quality Progress Report
2014

Enquiries:

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