

Report of the Director of Communities and Neighbourhoods

AIR QUALITY UPDATE

Summary

1. The purpose of this report is to update the executive member of the outcome of the recent Air Quality Support Grant (AQSG) applications made to the Department for Environment, Food and Rural Affairs (DEFRA). Three AQSG bids were made in relation to the council's ongoing Local Air Quality Management (LAQM) work. The report provides an overview of the planned expenditure of the AQSG and requires a formal decision to be taken to approve the amount of AQSG to be accepted from DEFRA. The report also provides a general update on local air quality management in York.

Air Quality Support Grant

Background

2. The government supports local authorities capital expenditure on LAQM through a direct grant scheme known as the Air Quality Support Grant Programme (AQSG). Previous air quality grants from DEFRA have funded a comprehensive air quality monitoring network in York and the in-house operation of an air quality computer model. The scope of the monitoring network was reviewed and streamlined in 2006, with the main emphasis now on nitrogen dioxide and particulate monitoring.
3. The environmental protection unit (EPU) submitted three AQSG bids to DEFRA in April 2009. The total amount bid for was £195,025 of which £16,500 was initially awarded. A letter was sent to DEFRA requesting that York should be considered for any further grant that might become available later in the year. In February 2010 an additional grant of £20,000 for Air Quality Action Planning was awarded.
4. In April 2010, EPU submitted three new AQSG bids to DEFRA to support the council's air quality work during 2010/2011. The amounts bid for were:

Air quality monitoring =	£88,610
Air quality modelling =	£50,628
Air quality action planning =	£172,750

5. Due to a national shortfall in the amount of grant available, York has been provisionally allocated the following amounts of AQSG for 2010/2011 :

Air quality monitoring =	£0
Air quality modelling =	£4,340
Air quality action planning =	£72,750

It can be seen that these awards again fall well below the amounts within the bids. It should be noted, however, that City of York Council received the fifth highest grant allocation of all UK local authorities.

Consultation

6. No consultation has been undertaken for the purpose of this report.

Proposed expenditure

Air quality monitoring

7. The DEFRA grants received for monitoring during 2009 allowed an upgrade of the Gillygate real time monitoring site, together with a new five year service and maintenance contract. The real-time monitoring site on Heworth Green was also upgraded, as was the computer system used by EPU to undertake in-house data management of real time air quality data.
8. The £88,600 bid for air quality monitoring, submitted in April 2010, was to undertake the following three projects:
- Project 1 : A real-time monitoring station on Salisbury Terrace
 - Project 2 : Replacement of the Nunnery Lane monitoring site
 - Project 3 : New portable particulate monitors for biomass monitoring projects in the city
9. Project 1 relates to the installation of a real time monitoring station along Salisbury Terrace. City of York Council's most recent Progress Report (April 2010) identified an area of Salisbury Terrace that has shown elevated levels of nitrogen dioxide in recent years. The Council is required to progress to a Detailed Assessment of nitrogen dioxide in this area and undertake further monitoring to establish whether air quality objective levels are being exceeded in this area. Project 2 is concerned with upgrading existing older air quality monitoring equipment in the city to ensure continuous collection of high quality monitoring information for future rounds of air quality review and assessment. Project 3 requested funding for the purchase of additional portable particulate monitors. Due to the recent increase of applications for biomass boilers in the city (as described in City of York Council's most recent Progress Report, April 2010), the OSIRIS particulate monitors were required for short term monitoring projects in the city, and shall be moved around different locations to monitor the

local impact on particulate concentrations. Two examples of recent biomass installations in the city include those located at Oaklands Pool and York High School in Acomb.

10. City of York Council did not receive any funding for air quality monitoring during 2010/11. This means that it will not be possible to purchase a real time monitoring site for undertaking a detailed investigation into the levels of nitrogen dioxide along Salisbury Terrace. Whilst the undertaking of a Detailed Assessment is a statutory requirement, this study will now have to be carried out on the basis of diffusion tube monitoring (a less accurate monitoring technique). Nunnery Lane monitoring station and enclosure will not be replaced, and small scale projects looking at the impact of biomass burners in the city will have to be scaled down considerably.

Air quality modelling

11. The £1,500 allocation for modelling received in 2009/10 was used to support the air pollution modelling activities within EPU. This included extension of the support contracts for the air quality dispersion modelling software.
12. The £50,628 bid for air quality modelling submitted in April 2010 was to undertake the following five projects:
 - Project 1 : Continuation of the air pollution modelling post that was successfully established in the department following the successful modelling SCA application in 2001/02.
 - Project 2 : Origin/Destination study on the A19 Fulford Road corridor.
 - Project 3 : Traffic survey work to refine the traffic data in City of York Council's existing air quality model.
 - Project 4 : Source apportionment study for Fulford to look at the relative contribution made by different sources to pollution in the area.
 - Project 5 : Purchase of recent met data for air quality dispersion modelling studies.
13. Project 1 requested funding for offsetting salary costs for an officer responsible for undertaking all air quality dispersion modelling in the city. This post is considered essential for progressing the council's statutory Review and Assessment work. Projects 2,3, 4 and 5 are concerned with further work in relation to the recently declared Air Quality Management Area (AQMA) in Fulford. The declaration of the AQMA in April 2010 placed a statutory requirement for the council to produce an Air Quality Action Plan (AQAP) for the area by the end of 2011. Projects 2 to 5 are required to support the development of the AQAP.
14. The amount of AQSG funding received from DEFRA for air quality modelling during 2010/2011 was only £4,340 compared with the **£50,628** bid. This means that salary costs for the modelling officer post will have to be funded from EPU's

budget. Whilst an Air Quality Action Plan for Fulford still has to be developed, the shortfall in funding allocation for means that planned projects will have to be scaled down considerably. Since receiving notification of the proposed funding allocation, EPU has been approached by the Institute of Transport Studies (Leeds University) and have secured a part time (fully funded) researcher to work within EPU to assist with developing options for the Fulford Air Quality Action Plan. Dr James Tate will work within EPU two days a week for a 12 month period. Dr Tate research interests include traffic micro-simulation and emissions modelling.

Air quality action planning

15. As the £20,000 additional allocation for air quality action planning received in 2009/10 was awarded late in the financial year, the majority of this money was carried forward and will be used for projects proposed for the 2010/11 period. A small proportion of this money was used to fund an advert to raise awareness about the existence of smoke control areas, and continued work with local primary schools in relation to local air quality. A sum of £1760 has also recently been used to undertake detailed traffic counts on Fulford Main Street. This was required to inform the air quality action planning process currently being undertaken for this area. Some additional costs are likely in relation to the consultation process for the Fulford air quality action plan.
16. The £172,750 bid for air quality action planning submitted in April 2010 was to undertake the following seven projects:
 - Project 1 : Low Emission Strategy Regional Group Initiative
 - Project 2 : Low Emission Strategy Procurement Guidance Project
 - Project 3 : Development of an AQAP for Fulford
 - Project 4 : Better understanding of on-road vehicle emissions in the AQMAs using remote sensing and automatic number plate recognition (ANPR).
 - Project 5 : Procurement of an electric vehicle and electric bike
 - Project 6 : Improved control of domestic emissions
 - Project 7 : Further development of JorAir website
17. In addition to these 7 projects, City of York Council has also submitted an eighth bid on behalf of the Leeds City Region Low Emission Regional Group Initiative (hereinafter termed 'Project 8'). The purpose of this bid is to allow in use traffic emissions data from around the region to be analysed simultaneously by the Institute of Transport Studies (ITS) at Leeds University and a regional vehicle emission data base to be set up. This will aid air quality action planning throughout the region and also inform the land use planning system at both a local, regional and potentially national level. Like York, each of the interested local authorities has submitted an individual application to support the undertaking of remote sensing and ANPR surveys in their areas.

18. Of the 7 projects outlined above, projects 1, 2 and 4 received funding.

(a) Project 1 relates to the work York is undertaking as part of the Leeds City Region Regional Group Initiative (LCR RGi) for which York is acting as a regional low emission champion with Leeds. The funding received for this project will be used to:

- i. Promote the work of the LCR RGi through a website. This website has already been developed in house and was recently launched at a low emission vehicle conference in Leeds www.lcrrgi.org.uk. The funding will be used to cover the domain hosting and registration costs.
- ii. Support the development of an overarching low emission strategy (LES) in York. The LES is already under development with an outline strategy to be brought before members in December 2010. The funding received to support this project will be used to undertake some of the following:
 1. Feasibility studies and cost benefit analysis for some of the proposed LES measures
 2. Promoting the use of low emission vehicle fleets in York
 3. Marketing of the LES concept including development of a recognisable logo and marketing campaign
- iii. Support the development of low emission supplementary planning documents (SPDs) across the LCR. This will encourage the adoption of low emission measures on new developments and help ensure a network of electric vehicle recharging points is delivered across the city.
- iv. Promotion of low emission vehicles across the LCR. A number of seminars and workshops have already been held, the latest being a low emission vehicle demonstration day and conference held in Leeds on the 7 October. A short video of the event can be viewed here : <http://www.youtube.com/watch?v=lpyKhgL324A>

A total of £42,096 is available to support the development of the low emission strategy.

(b) Project 2 is being co-ordinated by the low emission strategies partnership (LESP). A number of local authorities including York bid for funding to support this project which will examine how the procurement process can influence the uptake of low emission technology by local authorities. A key focus of this study will be the procurement of low emission vehicles and how local authorities can work together to bring down the cost of adopting new technologies and providing the necessary refuelling infrastructure. A member of the York procurement team will be involved in this project which will result in the production of a low emission

procurement guidance note. York's contribution to this project will be £12,000.

- (c) Project 4 relates to the undertaking of further in-use vehicle emission testing and ANPR surveys in York by ITS. Some initial measurements were undertaken in 2008 but further data is needed to gain a better understanding of how different vehicle types and ages contribute to the air quality issues in York. Similar bids were placed by a number of other local authorities in the Yorkshire region which were also successful. This will allow a regional database of in-use vehicle emissions to be drawn up for the first time. The cost of the further monitoring in York will be £10,403

19. As detailed above, a further bid for £8250 was submitted by York on behalf of the LCR to cover the analysis of a regional emissions data set. This bid was also successful. The sum of £8250 will fund 15 days of data analysis over and above that which will be carried out for individual authorities.

Update on Local Air Quality Management in York

Local Progress

20. In April 2010, City of York Council submitted an Air Quality Progress Report to DEFRA. This report provided an update on the air quality monitoring data collected during 2009 and considered the potential impact of newly identified sources of air pollution.
21. The assessment of additional monitoring data collected during 2009 has identified numerous relevant locations within the current AQMA where annual average nitrogen dioxide concentrations remain above the $40\mu\text{g}/\text{m}^3$ objective level. This reflects the findings of previous review and assessment reports and indicates that the current AQMA must be retained in its current form for the foreseeable future.
22. Trend analysis of annual average nitrogen dioxide concentrations across the AQMA showed that between 2002 and 2005 concentrations were decreasing, but this trend was reversed in 2006. For the past four years, year on year increases in annual average nitrogen dioxide concentrations across the AQMA have been recorded.
23. Outside the AQMA the annual average nitrogen dioxide objective is being met at most locations. However, there are a handful of sites which have given rise to individual elevated concentrations in recent years, but at present it is not considered necessary to bring them within the AQMA. It is proposed to continue monitoring at these sites and to re-assess their position in 2011. The one exception to this is Salisbury Terrace, where elevated concentrations of nitrogen dioxide have been consistently observed over recent years. A detailed assessment of nitrogen dioxide concentrations in this area is now required by DEFRA.

24. Monitoring of other pollutants, including particulate matter (PM₁₀), has not indicated any issues with respect to any air quality objective values; therefore no further AQMAs are proposed at this time. A further, comprehensive update for other pollutants will be provided as part of City of York Council's next Progress Report, due in April 2011.

Fulford Air Quality Management Area (AQMA)

25. City of York Council's Air Quality Progress Report, submitted to DEFRA in April 2008, identified a number of air quality monitoring sites outside the existing AQMA where elevated concentrations of nitrogen dioxide had been monitored in recent years. One of these sites, Fulford Main Street, had experienced consistently elevated concentrations of nitrogen dioxide for a number of years.

26. A Detailed Assessment, as required by DEFRA, was carried out (report available online at : <http://www.jorair.co.uk/index.php?page=reports>) for the area of Fulford Main Street near the junction with Heslington Lane. Diffusion tube monitoring work indicated that concentrations of nitrogen dioxide are above health based air quality objective values along a short stretch of Fulford Main Street. Real-time monitoring at the junction of Fulford Main Street and Heslington Lane did not indicate any potential breaches and the extent of the exceedence appeared to be limited to Fulford Main Street itself.

27. Following a public consultation exercise, a new AQMA for nitrogen dioxide was declared in Fulford on 8 was required by DEFRA April 2010. A map showing the extent of the AQMA is shown in Annex A.

28. Nitrogen dioxide is a known respiratory irritant, which affects vulnerable groups such as children and people suffering from respiratory illnesses such as asthma, emphysema and lung disease. The declaration of the AQMA and subsequent development and implementation of an Air Quality Action Plan will aim to achieve a reduction in the levels of nitrogen dioxide, a benefit for both residents and visitors to the city of York.

29. Due to the volume of traffic using the Fulford Road corridor on a daily basis, it is thought that traffic is a significant source of air pollution in this area. This will be confirmed through further traffic surveys and 'source apportionment' work for the corridor. Further 'origin-destination' study for the A19 corridor is planned for later this year.

30. City of York Council will have 12-18 months to develop an AQAP for the AQMA in Fulford. Further consultation with local residents is planned for 2010/11 to establish what measures are appropriate for the corridor. As already mentioned, The highways and transport planning teams will be heavily involved in this process due to the close links to the Fulford Road corridor study.

Air Quality Website Review

31. In the annual Air Quality Bulletin publication website review, EPU's air quality website "JorAir" (<http://www.jorair.co.uk>) was ranked in the top 3 air quality

websites amongst all UK authorities, getting 5 stars for quality, and 4 stars for accessibility.

Low Emission Strategy (LES)

32. The council's LES steering group continues to work on the development of an overarching LES for the city. A list of possible measures for inclusion in the LES is currently under consideration by officers and being ranked in terms of delivery timescales and estimated costs. Once this process has been completed an outline framework for the LES will be presented to members in December 2010.

Joseph Rowntree School – the Faraday Project

33. Joseph Rowntree School was successful in obtaining a significant grant from the Faraday Project to develop two interactive science projects on the site. The Faraday Project is an initiative which set out to promote practical and innovative secondary school science facilities which support more interactive and exciting ways of teaching and learning. One of these projects was the installation of a real-time air quality monitoring station within the new school grounds to act as a science teaching resource. EPU have assisted the project by providing technical advice and lending particulate monitoring equipment to the school.

Options

- 34.
- (a) To accept air quality grants from DEFRA totalling £77,090 and allow the air quality projects outlined above to proceed, and to request that York be considered for any further grant that may become available in the year.
 - (b) To reject some or all of the air quality grants from DEFRA and revise the planned air quality projects for 2010/2011 accordingly.

Analysis

35. Option (a) will allow the council to progress development of the Air Quality Action Plan for Fulford and to continue with York's commitments to low emission measures both locally and regionally.
36. Option (b) would prevent the further development of an overarching low emission strategy for York and prevent York from fully undertaking its role as a regional low emission champion. Plans to develop national low emission procurement guidance and LES SPDs would be hindered, further emissions monitoring in York would have to be cancelled and the development of a regional emission database will not take place, even if other authorities accept their own emissions monitoring grants. An alternative source of funding for the development of an AQAP in Fulford would also need to be sought.

Corporate Priorities

37. Monitoring air quality, providing information to the public about air quality, and developing strategies to improve air quality contribute towards delivering the corporate priorities relating to thriving city, sustainable city and healthy city.

Financial Implications

38. No other source of funding exists for the projects outlined in this report. If the AQSGs are not accepted, alternative sources of funding will have to be identified in order to further LAQM in the city.

Human Resources

39. There are no human resource implications.

Equalities

40. There are no equalities implications.

Legal Implications

41. The council has a statutory duty to periodically review and assess local air quality against national air quality objectives and report its findings to DEFRA. As the council has declared an AQMA in Fulford, it is now obliged to produce an AQAP. There is also a requirement to submit regular AQAP progress reports to DEFRA demonstrating that it has a continued commitment to improving air quality in the city. Under the provisions of the Freedom of Information Act 2000 air quality data must be made freely available to members of the public upon request.

Crime and Disorder

42. There are no crime and disorder implications.

Information Technology (IT)

43. There are no IT implications.

Risk Management

44. In compliance with the council's risk management strategy. There are no major risks associated with the recommendations of this report.

Recommendations

45. That the advisory panel advise the executive member that :

Option (a) at para 36 should be accepted - to accept air quality grants from DEFRA totalling £77,090 and to request that York be considered for any further grant that may become available later in the year.

Reason: It represents the most appropriate way of funding the continuation of LAQM in the city and projects in relation to Council's Low Emission Strategy. LAQM is a statutory undertaking that contributes towards the corporate priorities on Thriving City, Sustainable City and Healthy City.

Option (b) should be rejected

Reason: No other source of funding for LAQM or the Low Emission Strategy projects has been identified. Refusal to accept all, or part of, the provisional grant would limit progress on corporate priorities relating to health and transport.

Contact Details

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**Report
Approved**



**Date
21/10/10**

Wards Affected: All

All

For further information please contact the author of the report

Background Papers:

Annex A : Fulford Air Quality Management Area