

NORTH LINCOLNSHIRE COUNCIL

**NEIGHBOURHOOD, ENVIRONMENT AND COMMUNITIES
CABINET MEMBER**

REVIEW OF AIR QUALITY MONITORING

1. OBJECT AND KEY POINTS IN THIS REPORT

- 1.1 To review the current air quality monitoring network to ensure that it will continue to provide meaningful data to assist in the source apportionment of PM₁₀ data and meet the requirements of the review and assessment process.

2. BACKGROUND INFORMATION

- 2.1 Prior to the declaration of the Scunthorpe Air Quality Management Area (AQMA1) in 2005 there was only limited data available on PM₁₀ concentrations across Scunthorpe. Consequently after successful DEFRA grant funding a further seven PM₁₀ monitors were located around the integrated steelworks site to assess the local air quality and the accuracy of the AQMA1 boundary.
- 2.2 Over recent years the council has successfully bid for approximately £300,000 in air quality grant, which has been used to expand and run the existing pollution network. The original bid in 2009/10 for network running costs was unsuccessful and, in the absence of air quality grant funding, running the current network is unsustainable.
- 2.3 The current pollution monitoring network costs £95,000 per annum to operate and, whilst some third party voluntary contributions are received, a significant portion is funded by the Environmental Protection teams revenue account.
- 2.4 Many of the 'new' sites have been operational since 2005/2006 and a wealth of data is now available. The data shows that monitoring sites located outside AQMA1 have consistently achieved the Government's air quality objectives whilst others located within the boundary of AQMA1 have breached. Appendix 1 identifies existing monitoring sites to be retained in red, sites proposed for deletion in blue and new sites in green.

- 2.5 The Council has recently been advised that it will soon receive a Filter Dynamics Measurement System (FDMS) Team which will replace the current Team affiliated to the Automated Urban and Rural Network (AURN) at the Scunthorpe Town Site. FDMS monitors are considered to be an 'equivalent' method of measuring PM₁₀. It is important however for the existing Team to be retained alongside the FDMS to ensure data continuity and comparison both historically, in the future and for trend analysis. Considering that there will be a new 'equivalent' method at Scunthorpe Town it is proposed that the Partisol 2025 currently positioned there be mothballed.
- 2.6 A further Partisol has been located at High Santon since December 2006. The three years' data collected identify that, whilst the site breaches the 24 hour mean air quality objective for PM₁₀ (AQMA1), it meets the annual mean PM₁₀ objective. The lease for the site expired in December 2009 and it therefore seemed a timely opportunity to remove the monitor. The Partisol is located some 400m from the Low Santon monitoring site, which houses a Team and it was therefore considered for removal. However after consultation with DEFRA they have agreed to fund this monitor for a further 12 month period.
- 2.7 The Environment Agency is currently working on a project to 'fingerprint' dust samples from specific processes within the integrated steelworks site for comparison with Partisol filters at High Santon and Scunthorpe Town. With this in mind the Environment Agency has also been contacted to see if it would prefer the Partisols to remain, and if it would be willing to support them financially.
- 2.8 The Teams located at Allanby Street Car Park and Lincoln Gardens continue to meet the air quality objectives and, coupled with possible development of the Allanby Street site, it is suggested that the two locations be deleted from the network and replaced by one new site located equidistant between the two existing sites on Cemetery Road, possibly Redbourne Club. This new site will seek to determine if the new location achieves the air quality objectives with a possibility of defining a new western boundary of AQMA1.
- 2.9 The Teams located at Broughton and Appleby are useful in so far as they identify pollution episodes that arise from the east of the area before air has passed over the integrated steelworks site. The sites also continue to achieve the air quality objectives. A recent dust complaint by local residents at a relevant location has prompted the team to consider monitoring at rural locations to the east of the integrated steelworks site. This would assess the residents' exposure to PM₁₀ for review and assessment purposes but continue to provide data on pollution episodes that arise from east of the steelworks.

- 2.10 A new site is also proposed at the Lakeside development in Scunthorpe in order to assess exposure to the residents at the new development in accordance with the Section 106 agreement associated with the planning permission.
- 2.11 In collaboration with the Environment Agency a PM_{2.5} analyser was installed for an initial period of 12 months at Low Santon. The team is currently preparing a report for submission to the Environment Agency but initial results suggest that this location does not breach the air quality objective for PM_{2.5}. This monitor was also earmarked for removal but DEFRA has agreed to fund upgrading this machine to an FDMS system to run alongside the existing TEOM at Low Santon.

3. OPTIONS FOR CONSIDERATION

- 3.1 Option 1:
Do nothing.
- 3.2 Option 2:
Relocate Allanby Street and Lincoln Gardens and amalgamate to a new site at Cemetery Road, Scunthorpe
- Relocate Broughton and Appleby and install a new site at residential dwellings to east of steelworks and Lakeside.
- Remove Partisol at Scunthorpe Town
- Upgrade PM_{2.5} at Low Santon to an FDMS monitor.
- 3.3 Option 3:
A combination of the above or an alternative proposal.

4. ANALYSIS OF OPTIONS

- 4.1 Option 1 - To do nothing would limit the future data opportunities and result in some important areas not being reviewed in accordance with statutory requirements.
- 4.2 Option 2 – This is the most favourable option in terms of progressing the monitoring of air quality and making efficiencies without compromising the service.
- 4.3 Option 3 - Any alternative proposals may compromise data collection or result in budget pressures for the team.

5. RESOURCE IMPLICATIONS (FINANCIAL, STAFFING, PROPERTY, IT)

- 5.1 The preferred option of 3.2 would reduce the current expenditure by £16,000 and bring the monitoring to a level that could be financed

within the existing budget. The process of the review has prompted intervention from DEFRA, which has awarded the authority an additional £28,000 in air quality grant for the upgrading and running costs of some of the equipment originally planned for removal. This does not however change the financial position but just purely guarantees operation of the equipment for a further 12 months.

5.2 There would also be a minimal saving on staff time for those who attend the sites on a fortnightly basis.

6. OTHER IMPLICATIONS (STATUTORY, ENVIRONMENTAL, DIVERSITY, SECTION 17 - CRIME AND DISORDER, RISK AND OTHER)

6.1 The review and assessment of air quality is a statutory function and relocation of the monitoring equipment enables us to move forward with this process.

6.2 Poor air quality has a detrimental impact on human health and life expectancy. The UK has recently applied to the EU for a time extension until 2011 in order to meet air quality objectives but this was refused. North Lincolnshire and a number of other areas in the UK are now in breach of European air quality directives, hence the recent intervention from DEFRA.

7. OUTCOMES OF CONSULTATION

7.1 Subject to the approval of the Cabinet Member it is proposed that all attendees of the AQMA meeting be consulted on these proposals.

8. RECOMMENDATIONS

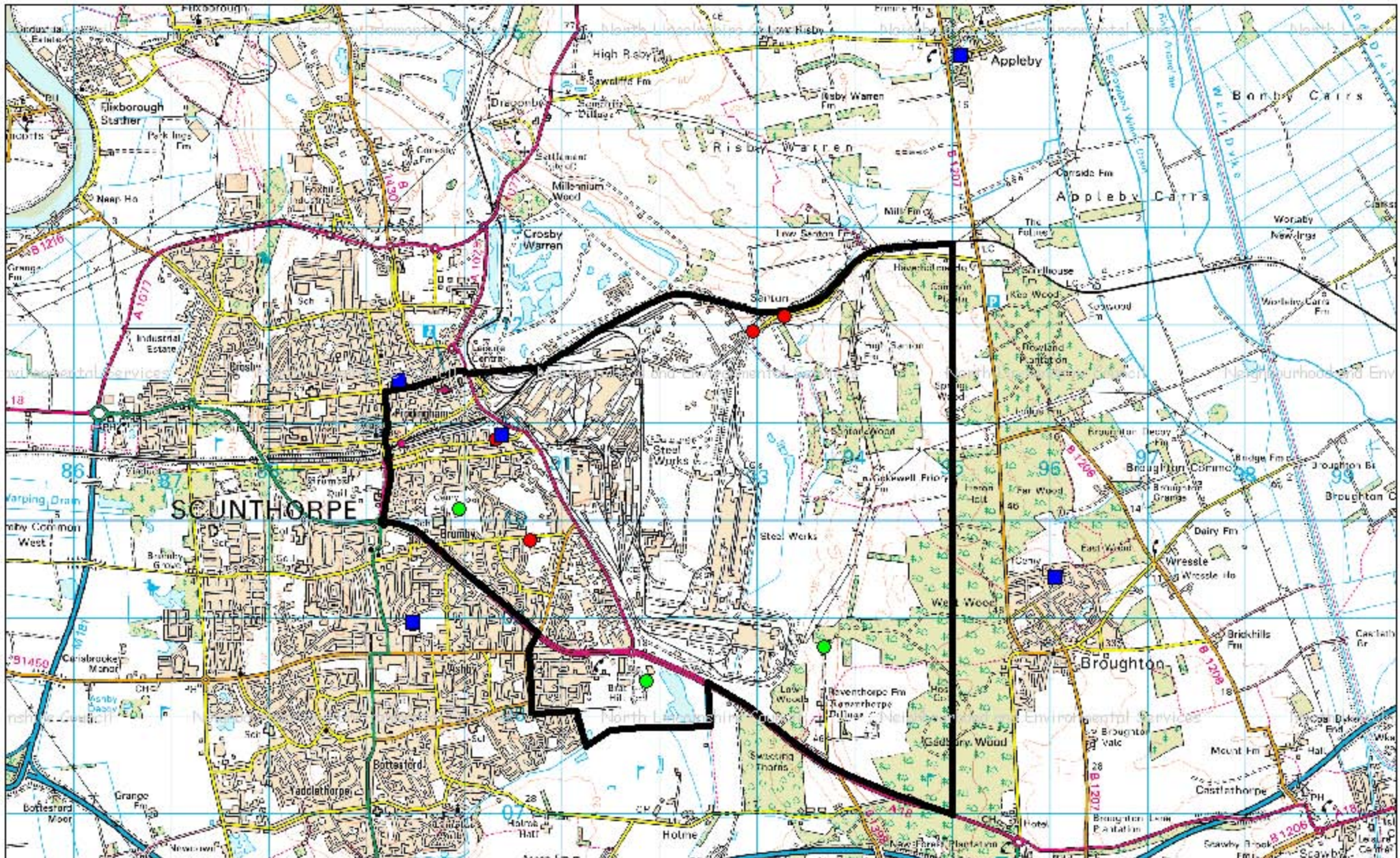
8.1 That approval be given to the proposed changes to the current monitoring network.


8.2 That consultation be carried out with all attendees of the AQMA meeting.

SERVICE DIRECTOR NEIGHBOURHOOD AND ENVIRONMENT

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Background Papers used in the preparation of this report None




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Drawing Title: Existing & Proposed Air Quality Monitoring Sites	
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Neighbourhood and Environmental Services

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