

Title: AIR QUALITY REVIEW & ASSESSMENT 2009

Date: Cabinet - 28th June 2009

Member Reporting: Cllr. Phillip Bicknell, Lead Member for Public Protection & Chief Whip

Contact Officer(s): Terry Gould, Head of Public Protection & Sustainability x3501 / Philip Turner Team Leader Environmental Protection

Wards affected: All

1. SUMMARY

- 1.1 The main purpose of this report is to seek authorisation from Cabinet to declare extensions to the two existing Air Quality Management Areas (AQMAs) and the introduction of one new AQMA following an Air Quality Detailed Assessment recently conducted under the requirements of the Local Air Quality Management regime.
- 1.2 The Environment Act 1995 requires local authorities (LA) carry out a review of air quality in its area to check compliance with air quality standards and objectives and for future compliance (currently running until 2010). This legislation has been supplemented by national Policy Guidance (Feb 2009).
- 1.3 Where assessments show that these standards are not being met a LA is required to designate such areas as an Air Quality Management Area (AQMA).
- 1.4 Once in place the LA has a duty to supplement the AQMA with a report of the results of the assessment within 12 months and prepare an Action Plan setting out how it intends to achieve the standard.
- 1.5 Failure of a LA to implement these requirements or where the Secretary of State deems them inadequate, then he may carry out his own review, identify areas requiring, by direction, an AQMA and action plan and direct the LA to implement these measures.
- 1.6 As far as the Royal Borough is concerned road traffic is the main source of emissions given its proximity to the M4 and Heathrow Airport. Whilst a separate process, the AQMA regime does dovetail into the Local Transport Plan (LTP) such that many of the measures specified in the LTP action plan will inform and benefit the AQMA regime. However, the Guidance requires a stand alone AQMA Plan.
- 1.7 The proposals set out in this Report are aimed at ensuring the necessary framework is in place within which these improvements can be achieved.

2. RECOMMENDATION

That Cabinet:

- a) Note the contents of this Report together with the recommendations of the Detailed Assessment report;
- b) Authorise the Head of Public Protection & Sustainability and the Head of Legal Services, in conjunction with the Lead Member for Public Protection to finalise Orders declaring:
 - (i) revisions to the two existing Air Quality Management Areas;
 - (ii) one new Air Quality Management Area for the relevant area of the Borough; as set out in Appendix 2; and
- c) Endorse the amendment to the Air Quality Action Plan to both complement and integrate with the relevant aspects of the Local Transport Plan (LTP2) and Local Development Framework (LDF).

What will be different for residents as a result of this decision?

The Borough's intervention is designed to: improve health as a result of reduced air pollution; reduce congestion and shorten (improve) journey times; encourage sustainable transport options and methods; and increase access to different modes of transport. The improvements to the highway network is further evidence of the Borough's commitment

3. SUPPORTING INFORMATION

3.1 Background

- 3.1.1 The UK air quality strategy stems from EU legislation, which is incumbent on all Member States. Recent publicity regarding several aspects of the UK Air Quality Strategy has resulted in requests to the EU for derogations due to continuing exceedance of air quality objectives, particularly in the South-East of England.
- 3.1.2 The Borough has a statutory duty under Part IV of the Environment Act 1995 to periodically review and assess the air quality within its area as part of the National Air Quality Strategy (NAQS). This has been an ongoing process since 1995. NAQS considers eight pollutants which have significant health effects and sets targets and dates ('air quality objectives') for acceptable levels of each. Seven of the pollutants identified in the Strategy are the responsibility of local authorities which are required to measure, monitor and assess the local impact of each pollutant. As far as the Borough concerned only one of the eight pollutants (NO₂) is currently in breach of the national standards.

- 3.1.3 All local authorities are required to submit the results from each assessment stage to DEFRA. The Borough's first air quality assessment (2000) highlighted a potential for the nitrogen dioxide (NO₂) objective to be exceeded in some locations. Any heavily trafficked areas also remain vulnerable to particulates (PM₁₀) and this indicator was identified as a possible area of vulnerability at that time. Fortunately the concentration of particulates within the Borough has remained in check. All subsequent Detailed Assessments have therefore been centred only on NO₂.
- 3.1.4 The primary source of NO₂ in the Borough is from road traffic due to sheer volume of traffic or congestion. It follows that the incidence of reduced air quality is therefore experienced in areas where traffic levels are high. This is no different from the problems experienced by many other towns and cities in the UK, particularly in the South East region. RBWM declared two air quality management areas (AQMA's) in 2005. All of the Borough's neighbouring authorities have declared AQMA's, with many now likewise requiring extensions and additions.
- 3.1.5 Most of the Borough has good air quality falling within the standards set out in the National Air Quality Strategy. There are however, 'pockets' of concern, and these include:
- ◆ Maidenhead Town Centre;
 - ◆ The junction of the A332 and Clarence Road, Windsor;
 - ◆ The crossing of the M4 over the A308 at Bray (new area), principally resulting from congestion on the M4 but with a contribution from the complex, and, at times, congested junction on the main road (A308).
- 3.1.6 These areas (Appendix 1) account for only approximately 1% of the Borough's total area. The revised or new boundaries of the proposed AQMA's are based on a combination of monitoring and the output of complex modelling combined with local knowledge. For example, boundaries do not run through properties, but along the site or street boundaries to make logical discrete areas.
- 3.1.7 Specific details of the roads located within the proposed AQMA boundaries are required by Regulation to be listed on formal Orders issued by the Council. These Orders are included as background papers to this report. The three Area maps are attached as Appendix 1(a); (b); and (c) to this report.
- 3.1.8 In accordance with the legislation and set down procedures a 'Detailed Assessment' report was submitted to DEFRA in late 2008. The results of this exercise require the Borough to formally declare a revision to the existing AQMA's and to introduce a new AQMA. This requires an amendment to the Borough's Air Quality Management Action Plan for the new areas. The purpose of the Action Plan is to detail what needs to be done to reduce pollution levels for NO₂ and it sets out a recommended programme as to how the Borough will work towards meeting the national target by 2015.
- 3.1.9 The formal process of declaring an AQMA falls into four phases:

- (i) Formal declaration of the area(s) via an AQMA Order.
- (ii) Further assessment of existing and future air quality in the AQMA(s) and submission of a report to DEFRA within 12 months;
- (iii) Development of an amended Air Quality Action Plan within 18 months; and
- (iv) Initiate and implement the delivery of the Action Plan and annual progress reporting.

3.1.10 During the initial stages of the air quality management process the local transport and air quality action plans were separate but interlinked processes. Since 2005 DEFRA has required that the air quality management process is to be integrated into the local transport planning (LTP) process to encourage a joined-up approach. RBWM has adopted this approach throughout. However, whilst integrated, councils are required to retain a standalone air quality action plan which is not dependant upon or controlled by the LTP or its process.

RBWM– CURRENT POSITION

3.1.11 A number of actions have been identified by the Borough's Local Transport Plan Project Board that will serve to bring about improvements to air quality in the Borough. These include:

- ◆ **Bray** – amendments to the junction of the A308 Windsor Road / B3028 Upper Bray Road are planned within the LTP capital programme. These are designed to ease the flow at the junction and reduce insofar as the Borough can, the component of traffic emissions resulting from local sources. The remainder of the contribution is from M4 traffic and this remains the responsibility of the Highways Agency. Discussions are underway with the Agency to determine the nature of any specific plans for reducing traffic congestion on the M4 at this point and to encourage them to include this point in their wider remit and proposals for the M4.
- ◆ **Windsor** – Reduction in traffic volume and improvements to the flow at the Clarence Road roundabout are fundamental to bringing about any significant improvement in this area. The Council has secured £10 million of government funding for the refurbishment of the Windsor and Eton Relief Road and for the Windsor Parking and Transport Project. Part of this money is earmarked for a comprehensive redesign of the Clarence Road roundabout, which will improve capacity and reduce congestion and associated pollution at this junction. The Council is commissioning consultants to evaluate options for the roundabout and subsequently progress with the design and implementation of the preferred scheme.
- ◆ **Maidenhead** – Continuous air quality monitoring confirms the air quality in Maidenhead town centre is deteriorating. The likely factors for this are a combination of traffic flows along the A4, and the redevelopment of the

Sainsbury and the Miller Homes sites both of which generate additional traffic. The future developments of the proposed Crossrail and Badnell's Pit, are likely to prove to be additional challenges to attaining improved air quality. Work within the Maidenhead Area Action Plan gives both an impetus and an opportunity to address a number of these challenges through the Maidenhead Regeneration project by taking a 'townwide' perspective rather than on a site by site/development basis.

In addition to the specific projects noted above, the approved capital programme includes a specific budget for 'Congestion Reduction / Air Quality Improvement Schemes'. The approved works programme assist in responding to the declared AQMAs and reducing congestion at other key locations.

Similarly the approved capital programme includes a specific budget for 'Intelligent Traffic Systems'. The approved programme of works is targeted at maximising the efficiency of traffic signals and providing travel information to users enabling informed choices to be made. This will also assist in reducing congestion, thereby improving air quality.

4 OPTIONS AVAILABLE AND RISK ASSESSMENT

4.1 A number of options have been considered. These are summarised below in Table 1.

Table 1: Options Appraisal

Option	Comments	Financial Implications
<p>1. Do Nothing</p> <p>This option is not recommended</p>	<p><u>Advantages:</u> None – no time spent on plans etc</p> <p><u>Disadvantages:</u></p> <ul style="list-style-type: none"> • Borough in breach of statutory obligations • Non-compliance with DEFRA timetable. Consequences • Health implications for those who live / work in AQMAs • Negative criticism from public • Instruction from Secretary of State to comply 	<p>Potential reduction overall Government funding for councils.</p>
<p>2. Delay the declaration of an AQMA</p> <p>Not recommended</p>	<p><u>Advantages:</u></p> <ul style="list-style-type: none"> • As for option 1 - None <p><u>Disadvantages:</u> As for Option 1</p>	<p>Potential reduction overall Government funding for councils.</p>

Option	Comments	Financial Implications
<p>3. Declare AQMA by way of Order for the identified locations</p> <p>This is the recommended option</p>	<p><u>Advantages:</u></p> <ul style="list-style-type: none"> • Compliance with DEFRA expectations • Work towards meeting statutory obligations regarding air quality management • Health improvements for those who live / work in AQMAs • Enhancement and protection of the environment • Joined up approach and integration of Action Plan with other Borough plans & policies including the Local Development Framework (LDF) and LTP 2 <p><u>Disadvantages:</u></p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • The purchase of air quality monitoring equipment (£30k received by RBWM in 2008 & 2009) for use in the extended AQMAs is grant funded by DEFRA. • Additional costs for review & assessment are approximately £6k and financed by 2009/10 revenue budget.

4.2 Risk assessment

4.2.1 The review and assessment process is mandatory. The Borough has a statutory obligation to declare AQMAs for any areas where exceedance of air quality objectives is predicted.

4.2.2 The declaration of an Air Quality Management Area is and needs to be viewed as a positive step towards attaining compliance and enhancing and protecting both the environment and quality of life within the Borough. The Action Plan (Appendix 3) is integrated with other emerging plans and policies such as the Local Development Framework (LDF) and the current and emerging Local Transport Plans and Climate Change Strategy.

5. CONSULTATIONS CARRIED OUT

5.1.1 It is a requirement of the Air Quality Review and Assessment process that statutory consultation is carried out. The Detailed Assessment report and all reports from preceding stages of the review process have been issued to statutory consultees. Local Parish Councils will also need to be consulted on the Detailed Assessment stage.

5.1.2 Consultation for the initial stages and for the earlier AQMAs of the process has previously been carried out via the BMG surveys and Maidenhead Town Centre

Forum. A further consultation in this area would be helpful as a part of the Maidenhead Area Action Plan process.

5.1.3 An integral part of the development of an Air Quality Action Plan will be to engage all relevant stakeholders by way of consultation. Similarly, as the main source of the pollutant is traffic, consultation on air quality issues will be undertaken as part of the on-going consultation on LTP2 and the subsequent LTP3 process.

5.1.4 It is proposed to engage with local stakeholders through the existing arrangements. These will need to include: the Maidenhead and Windsor Forums, including the Town Partnership forums; Chambers of Commerce and associated Bodies.

6. COMMENTS FROM THE OVERVIEW AND SCRUTINY PANEL

This report is due to be discussed at the Planning & Environment Overview and Scrutiny Panel held on 18th June. Feedback from the meeting will be included in the finalised report presented to Cabinet.

7. IMPLICATIONS

7.1.1 Financial

All ongoing review and assessment processes will be contained within the Air Quality budget for 2009/10.

7.1.2 Legal

The review and assessment process is a statutory requirement for all local authorities and is carried out for the purpose of compliance with the Environment Act 1995 and associated Regulations.

Financial	Legal	Human Rights Act	Planning	Sustainable Development	Diversity & Equality
✓	✓	✓	✓	✓	✓

Background Papers:

Environment Act 1995

The UK National Air Quality Strategy 2000 and revisions

Air Quality Regulations 2009 SI2007 No. 64

Environment Circular 15/97 Part IV Environment Act 1995 – Local Air Quality Management

LAQM (Local Air Quality Management Guidance PG09

Local Air Quality Management: Policy Guidance (PG09) – Defra (Feb 2009)

LAQM Technical Guidance TG09

Detailed Assessment Report compiled by Entec for RBWM (Executive Summary)

Air Quality Orders

Area Maps

APPENDIX 1(i) – SITE LOCATION: Maidenhead AQMA

APPENDIX 1(ii) – SITE LOCATION: Windsor AQMA

APPENDIX 1(iii) – SITE LOCATION: New Bray AQMA

APPENDIX 2 - Air Quality Action Plan (in association with the Local Transport Plan)

DETAILS	Responsibility	Impact on AQ	Targets By Date	Cost	Other Impacts
NETWORK MANAGEMENT (NM)					
Urban traffic control (NM) Details Updating and extending the current UTC* system					
Urban traffic control (NM) Details Updating and extending the current UTC* system	Stephen Brown	High	2010 on	High	
Windsor & Eton Relief Road/ Clarence Road Junction (WERR)					
Windsor – part of the Windsor Relief Road scheme (see entry above & WERR scheme (below)	Stephen Brown	High	2010	High	Windsor – part of the Windsor Relief Road scheme (see entry above & WERR scheme (below)
Junction Improvements (NM) Details: Modifying the layout of junctions experiencing chronic congestion					
Ongoing feasibility in progress at key roundabouts and junctions in Maidenhead and Windsor.	RBWM: ES Stephen Brown	High	2010 and ongoing	Low	Reduced road traffic congestion
Windsor & Eton Relief Road, Clarence Road junction improvement scheme in association with DfT, Highways Agency. Maintenance and improvements including traffic studies, traffic light (UTC replacement), reduce congestion and traffic routes.	RBWM: CS	High	2010 on	High (ext. funded)	Health and air quality benefits and reduced congestion at peak hours
Windsor Parking and Transport Strategy: Car parking includes - Home Park car park extension; East Berks. College (extended public use); weekend public use of King Edward VII Hospital car park; improved accessibility at Windsor Dials; new park and ride schemes from Centrica and Windsor Racecourse; enhancement of the existing park and ride at Legoland and improved travel information	Stephen Brown/Ben Smith	High	Cabinet June 2009	Medium	Reduced road traffic congestion by reducing circulating traffic
Bus priority at traffic lights	Ben Smith	Low	2011	Low	
Bray/M4/A308 Junction Improvements					
To improve traffic flow, reduce congestion and improve air quality. Any remaining problems will result from M4 traffic – Highways Agency (HA).	RBWM: Environment	Med	2009	Medium	Improved road safety for

* Urban Traffic Control
 * Urban Traffic Control
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Dialogue to be enhanced with HA & SEERA re resolutions proposed.	Services Ben Smith				cyclists / motorcyclists.
Maidenhead Town Centre					
Review of traffic in Maidenhead town centre with particular reference to Grenfell Road junctions and along A4 throughout the length to Castle Hill.	Initiator: Philip Turner with LTP Project Group & Maidenhead Area Action Plan working group	Potentially high	Commencing Spring 2009	Potentially high	Wide environmental benefits, reduced congestion, traffic flow improvements & wider health & environmental benefits
AIR QUALITY MONITORING					
Air Quality monitoring stations (Real-time)					
Maintain and attain data from 2 stations established in 2005	Feliciano Cirimele	N/A air quality information acquisition	Ongoing	Low	N/A
Install and attain data from 2 new stations to be installed summer 2009 funded by DEFRA air quality grant	Feliciano Cirimele	N/A air quality information acquisition	Ongoing	Low	N/A
Sampling diffusion tubes to monitor NO₂					
Continue & extend as necessary diffusion tube network to provide finer distribution of data throughout the Borough. This network supplements the data from the real-time analysers – a low-cost option for additional data acquisition	Feliciano Cirimele	N/A air quality information acquisition	Ongoing	Very low	N/A
Monitoring Fine particles (PM₁₀)					
To date no monitoring of PM ₁₀ has been undertaken within the borough. Recent assessments (post 2000) have identified no problems from particulates despite increased use of diesel powered road vehicles.	EPU, IC, ENTEC Feliciano Cirimele	N/A		Low	none