

DATE: 10th June, 2010

Air Quality Action Plan

Ward(s) All

Portfolios: Cllr Anthony Harris – Leisure, Culture and Environment
Cllr Tom Ansell - Transport

Summary of report:

In March 2009 the council's borough-wide Air Quality Action Plan (AQAP) was accepted on behalf of the Secretary of State for the Environment and implemented as of June. The Plan contains a series of actions designed to improve air quality to meet objectives set out in a national air quality strategy published by the government.

The compilation and implementation of the AQAP is a statutory requirement, as the council declared the whole borough an Air Quality Management Area (AQMA) in 2006, due to exceedances of a national air quality objective relating to nitrogen dioxide. The main cause of this was identified as road traffic exhaust emissions.

Air quality studies are a continuing process, with ongoing air quality monitoring at strategic locations across the borough. Together with computer modelling of pollution levels that is to be completed in the next two months, the information and data collated will be used to provide an update on the council's AQAP to the Department for Environment, Food and Rural Affairs (DEFRA) and assist in a review of the proposed actions in the AQAP.

Background papers:

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. DEFRA July 2007.

<http://www.defra.gov.uk/environment/quality/air/airquality/strategy/index.htm>

Walsall Air Quality Management Area Consultation – March 2006 (Draft Order Designating an Air Quality Management Area)

http://www.walsall.gov.uk/consultation_draft_consolidated_aqma_order_march_2005.pdf

Declaration of Borough Wide Air Quality Management Area 2006

http://www.walsall.gov.uk/aqma_order_.pdf

Department for Environment, Food and Rural Affairs comments on Walsall Metropolitan Borough Council 2008 final air quality action plan (received March 2009).

Air Quality Action Plan (version 2.1) June 2009
http://www.walsall.gov.uk/air_quality_action_plan_2009.pdf

Air quality updating and screening assessment 2009.
http://www.walsall.gov.uk/air_quality Updating_and_screening_assessment_2009.pdf

Reason for scrutiny:

The Environment Scrutiny and Performance Panel resolved that one of the issues that they are keen to pursue at the commencement of the 2010-2011 municipal year was the borough-wide Air Quality Action Plan (AQAP).

Resource and legal considerations:

Financial: LAQM is administered from the annual Pollution Control budget in respect of professional and technical work undertaken by officers, and continued operation and maintenance of an air quality monitoring network throughout the borough, which is administered by the Pollution Control Laboratory.

Any expenditure designed to mitigate air pollution and/or achieve compliance with Air Quality Objectives largely falls under the responsibility of Engineering & Transportation and Regeneration, unless it is otherwise the subject of government grant funding.

Legal: The Council had a duty under section 84(2) of the Environment Act 1995 (As Amended) to produce an AQAP as a borough-wide Air Quality Management Area (AQMA) pursuant to section 83(1) of the Act has been designated.

The Secretary of State has reserve powers under section 85 of the 1995 Act for the purpose of conducting, or requiring to be conducted, reviews and assessment of air quality, and to make directions to local authorities to take steps as may be specified for the purpose of implementing air quality reviews, assessments, AQMAs, and AQAPs.

Staffing: Air quality work conducted for the purpose of the Government's Air Quality Strategy is carried out by officers of Pollution Control's Scientific Team, which is part of Engineering and Transportation Services.

The implementation of the AQAP can have implications for other service areas, notably Transportation, Highways, Strategy, Regeneration and Strategic Planning, where required actions need a resource element.

Citizen impact:

Air quality has a direct influence on the health of the general public, as well as the environment.

The statutory Air Quality Review and Assessment regime is designed to improve and safeguard the health of citizens. By declaration of AQMAs, improvements must be made in areas of relatively poor air quality by the subsequent implementation of local AQAPs.

Environmental impact:

Implementation of an AQAP will have a positive long term environmental impact by working towards meeting national air quality standards which are designed to safeguard health.

Key locations of poor air quality due to road traffic will be targeted, and air quality throughout the borough will continue to be tracked using the council's existing air quality monitoring network.

Performance management:

Local Air Quality Management is a mandatory function local authorities are obliged to carry out, and forms inherent elements within Service, Team and Individual Performance Management Plans.

It is intended that following the completion of further detailed air quality modelling work over the course of the next three months to inform the action planning process, a steering committee will be convened as necessary to develop further progress measures. This steering committee will engage internal and external stakeholders to aid delivery of the AQAP.

Equality Implications:

Development of an AQAP must be an inclusive process in dealing with air quality, not only for the purposes of achieving an objective, but also to link in with policies borough-wide which have a direct effect on sustaining safer, cleaner, and stronger communities and providing support for vulnerable sectors.


Consultation:

A statutory consultation on the AQAP was carried out between December 2008 and March 2009. This exercise included: neighbouring local authorities, the Environment Agency, Walsall Chamber of Commerce, the Highways Agency, Walsall NHS, Local Neighbourhood Partnerships and Centro.

This scrutiny report has not been subject to specific consultation.

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1.0 Air Quality Review and Assessment

1.1 The Environment Act 1995 Part IV (as amended) introduced a new regime in the United Kingdom requiring local authorities to review air quality in their areas on an annual basis as part of a three year cycle of reporting to central government. This is to ensure that air quality objectives (AQOs) are met relating to seven key air pollutants that are set out in The Air Quality Strategy for England, Scotland, Wales and Northern Ireland ('the Strategy').

1.2 AQOs specified in the Strategy are fundamentally designed to protect human health and are assessed in areas of relevant exposure, namely where people are regularly exposed to, and may be affected by, air pollution. The pollutants for which objectives have been set and local authorities are obliged to assess are as follows:

- ▶ 1,3 Butadiene
- ▶ Benzene
- ▶ Carbon monoxide (CO)
- ▶ Lead (Pb)
- ▶ Nitrogen Dioxide (NO₂)
- ▶ Particles (as PM₁₀)
- ▶ Sulphur Dioxide (SO₂)

1.3 A further objective relating to ozone (O₃) is also included, although this is a long-range trans-boundary pollutant, and is seen as a national, rather than a local problem, that is to be dealt with by central government.

1.4 In April 1999 Walsall Council published its First Stage review and assessment of air quality involving the identification of significant sources of air pollution within and surrounding the borough, reviewing the levels of air pollutants for which prescribed standards and objectives have been set, and estimating the likely future levels.

1.5 The First Stage confirmed that the air quality objectives for 1,3 butadiene, benzene and CO would be achieved by the required deadlines, and that a second and third stage review and assessment would be required in relation to lead, NO₂, SO₂ and PM₁₀ to identify existing or likely exceedances of the AQOs by set deadlines. This detailed investigation was intended to determine whether or not the council would need to declare AQMAs. The investigation utilised data obtained from computer modelling techniques, emission inventories, road traffic surveys and results obtained from a network of air pollution monitoring stations located throughout Walsall and the West Midlands.

1.6 A combined Second and Third Stage Review & Assessment required the council to provide further screening of pollutant concentrations with reference to AQOs and their associated compliance deadlines, together with accurate detailed assessments of current and future air quality. This combined Assessment concluded that in Walsall the Government's air quality objectives would be met by the specified deadlines and that no air quality management areas would need to be declared. The report nonetheless recognised that further work would be required before the next review and assessment that was due in 2003 to overcome anomalies identified in relation to measured and modelled concentrations of certain pollutants, notably NO₂.

2.0 Air Quality Management Areas

2.1 An addendum report was subsequently produced specifically in regard to NO₂ which led to the declaration of five AQMAs in 2002. Primarily these were in the region of the M6 motorway.

2.2 As part of continuing work on air quality it was established that the council's original five AQMAs did not sufficiently reflect all locations where AQOs are (or were) likely to be exceeded, and hence it was therefore necessary to redefine the AQMAs.

2.3 A strategic review was carried out in 2005 to inform this process, which clearly identified the M6 corridor and the A454 and A 461/A4148 (from M6 Junctions 10 and 9 respectively) as main traffic routes giving rise to poor air quality. These areas are depicted in red to yellow in Figure 1 (Colour copies of this report will be made available at the meeting).

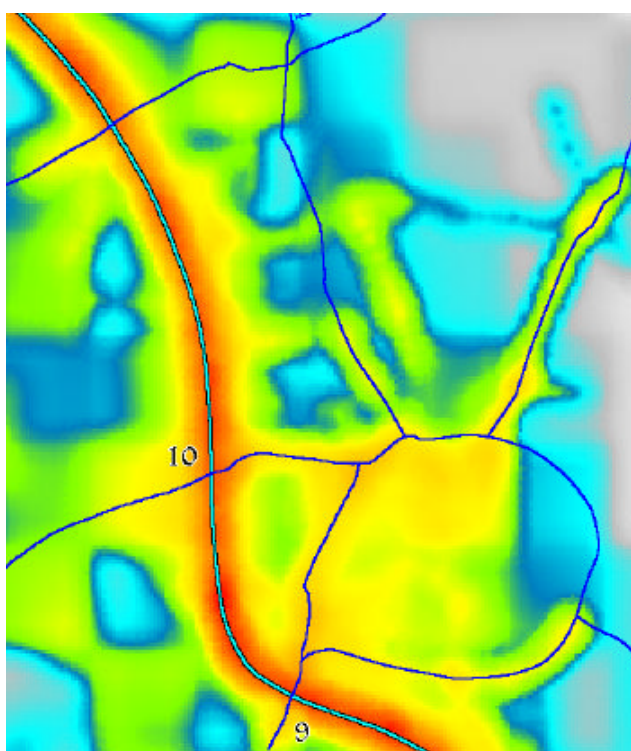


Figure 1: Predicted Annual NO₂ Contours - Walsall 2005

2.4 In August 2006 Walsall MBC subsequently revoked the five original AQMAs in order to consolidate the whole of its borough as an AQMA. The Walsall Air Quality Management Area 2006 for NO₂ was declared on 31st August 2006.

3.0 Walsall Air Quality Action Plan Consultation

3.1 Following the declaration of a borough-wide Air Quality Management Area (AQMA) in 2006, the Council had a statutory duty under the Environment Act to produce an Air Quality Action Plan (AQAP). The purpose of this is to demonstrate how the Council is working towards meeting air quality objective(s) set out in the Government's Air Quality Strategy.

3.2 There are formal requirements to carry out consultation in relation to certain

aspects of local air quality review and assessment, including AQAPs. Cabinet approval was consequently given on 17th December 2008 for a draft Action Plan to be the subject of consultation, and thereafter its implementation once approval had been received on behalf of the Secretary of State.

3.3 The formal consultation on the draft Action Plan took place over a 12 week period ending on 31st March 2009. DEFRA confirmed on 13 March 2009 that the Plan showed the council has addressed recommendations made earlier by DEFRA in regard to a pre-consultation draft that had been submitted, and the council was duly commended for its efforts in producing a comprehensive report.

4.0 Walsall Air Quality Action Plan June 2009

4.1 The ratified Plan summarises a review of air quality in Walsall and sets out the case for the introduction of an AQMA. The main drivers are that:

- ? Based on 2006 modelling studies, annual mean NO₂ was predicted to exceed the AQO at 32 locations across the borough. This is the primary justification for declaration of the AQMA.
- ? Modelling studies at 21 receptors indicated that the annual AQO for NO₂ would be exceeded at 18 of them, with an average excess NO₂ of 6 ug/m³ (micrograms per cubic metre), and a maximum excess of 12 ug/m³.
- ? Studies at the same receptors indicated that 35% of emissions were from outside the authority's domain, while 41% were from road transport, including 23% from HGVs.

4.2 The council has thus identified areas within Walsall that exceed, or are likely to exceed, the annual average and hourly national air quality objectives (AQOs) for nitrogen dioxide (NO₂). A series of proposed actions to meet required levels of reduction in emissions are therefore set out to redress poor air quality which are summarised in Appendix 1. These are primarily based on source apportionment studies of emission contributions from cars, light goods vehicles, heavy goods vehicles and buses.

4.3 Emissions of NO₂ from road transport are significantly affected by emissions from heavy goods vehicles and to a lesser extent by cars. Light goods vehicles tend not to contribute extensively to emissions, whilst buses have a significant contribution at three locations.

4.4 It is seen that relatively large reductions in emission concentrations are required in order to meet the annual NO₂ objective at the receptors under consideration. Emissions from vehicles will inherently reduce in the future through increased efficiency, improved technology and tighter pollution control. Nonetheless, it is considered that further reduction measures will be required in order to meet the annual NO₂ objective. Domestic, commercial and industrial sources within the borough are less relevant in this context, but are nonetheless included in the appraisal of air quality impacts.

5.0 Walsall Air Quality Action Plan Measures and Ongoing Studies

5.1 The borough-wide AQAP contains a series of proposed actions designed to improve air quality or provide information for this purpose. A number of these are ongoing long-term initiatives that look towards reducing vehicle emissions at source, improving public transport to reduce the volume of traffic, road network improvements, promotion of alternative modes of transport and general measures to reduce traffic.

5.2 A source apportionment study has been carried out in order to aid the targeting of measures within the AQAP, suggesting that the most significant source of NO₂ emissions are associated with Heavy Goods Vehicles (HGVs). This is due to a combination of fuel type, engine size, and to some extent use of particulate traps in exhaust systems. Many of the required actions in the AQAP are hence not deliverable by the council alone, and cannot therefore be assigned realistic timescales. Measures directly implemented to date that are relevant to the AQAP include :

Introduction of Red Routes: The following red routes have now been implemented –

- ? A34 South Birmingham – completed August 2008
- ? A4148 Littleton Street/Pleck Road (Town Centre Transport Package) – completed Spring 2009
- ? A454 Black Country Route – completed Spring 2008
- ? A41/A4444 Black Country Spine Road – completed Spring 2008

The following red routes are in the process of being introduced –

- ? A34 North Stafford Road/Green Lane – Started January 2010, due for completion winter 2010
- ? A454 Wolverhampton Road – Started May 2010, due for completion December 2010
- ? A4148 Broadway/Broadway West/Pleck Road/Bescot Road – due for completion spring 2011

A business case is to be submitted to the Department of Transport this coming autumn for additional red routes which will include:

- ? A452 Chester Road – entire length within Walsall's boundaries.
- ? A461 Lichfield Road – from the Arboretum junction to the boundary with Lichfield District Council.
- ? A4031 West Bromwich Road – from Broadway to the boundary with Sandwell MBC.
- ? A4041 Queslett Road - entire length within Walsall's boundaries.

Improvements to motorway traffic flow: The M6 Active Traffic Management scheme is currently being introduced within the borough following its successful use along stretches of the M42 and further south along the M6. This is scheduled to be completed and fully operational during early 2011.

Development Control: Pollution Control is a consultee on all proposed developments and assesses development schemes as necessary to ensure air quality impacts are appropriately managed. For example, where practicable, mixed use development is encouraged to reduce travel needs.

Enforcement of Industry and Commerce: Pollution Control administers Environmental Permits for the purpose of regulating emissions to air of approximately 110 processes under the Pollution Prevention and Control Act 1999 and the Environmental Permitting Regulations 2010.

Management of City Centre Car Parks: Variable Message Signage for driver information is being introduced which will aid control of traffic to ease congestion. This initiative is being co-ordinated across the West Midlands and is to be administered through the new Traffic Control Centre based at Quinton.

Urban Traffic Control: Town Centre Transport Package improvements works are continuing to improve traffic management. These incorporate the introduction of sections of bus lanes at Pleck Road junction and Arboretum junction.

Work has also just begun on creating a contra flow bus lane along Hatherton Road to reduce the volume of traffic travelling through the town centre and still allow buses to access the centre. This work is being carried out in conjunction with the construction of the new Tesco store.

Enhanced Bus Routes: The following Bus Showcase route has now been introduced:

- ? Route 51 – Walsall to Birmingham, -completed August 2008

Other Bus Show Case routes are in the process of being introduced –

- ? Route 301 – Walsall to Bloxwich, due for completion Winter 2010
- ? Route 529 – Walsall to Wolverhampton, due for completion December 2010

5.3 Longer Term Projects: These include:

- ? Extension of the Metro link to Walsall
- ? Prioritisation of lane sharing
- ? Improve rail freight capabilities
- ? Increase passenger capacity of the rail network
- ? Freight partnership working
- ? Improve Walsall Council vehicle fleet

5.4 As part of a joint working arrangement with the West Midlands local authorities, consultants were commissioned in 2009 to carry out a pollution modelling exercise for the borough. This was conducted in order to assist in the validation of a newly constructed Emissions Data Base to serve all authorities across West Midlands region. The requirement for this modelling work stemmed, in part, from the need for the council to prepare an update to DEFRA on its AQAP, and to facilitate an update of the Plan and allow targeted actions to be pursued.

5.5 Following receipt of initial model results, additional work was commissioned using updated data inputs and requirements determined by Pollution Control Officers to give a more accurate picture of air quality across the borough. The results of this are depicted in Figure 2. Where areas shaded red through to orange indicate predicted exceedances of the annual air quality objective for NO₂ (colour copies will be available

at the meeting)

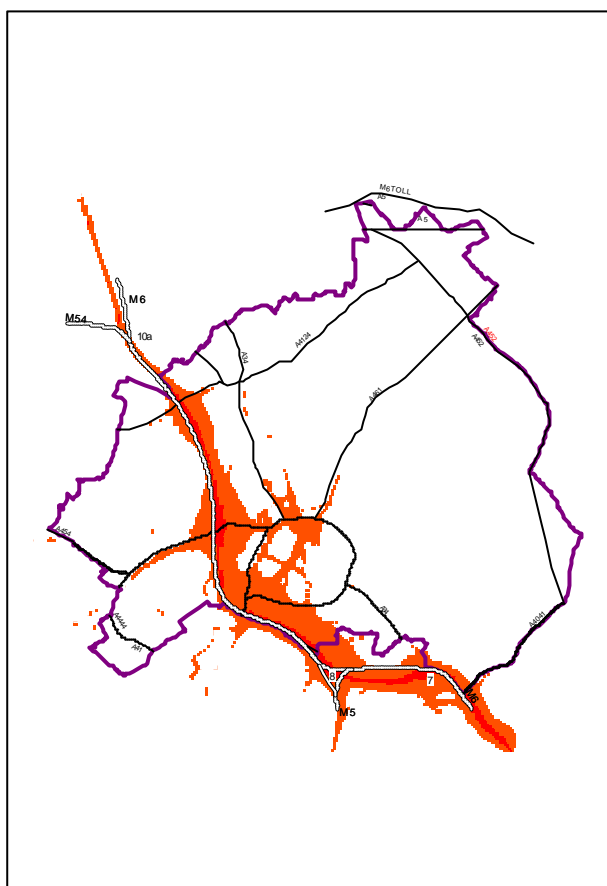


Figure 2: Predicted Annual NO₂ Contours - Walsall 2008

5.6 Pollution Control Officers are currently completing an in-house model to compare and contrast with this, after which a Progress Report on the AQAP will be compiled for DEFRA and a technical steering committee convened comprising key officers in relevant service areas to progress delivery of the Plan.

6.0 Low Emission Zones and Low Emission Strategies

6.1 Together with Dudley MBC, Walsall Pollution Control Officers have led on producing an application in May of this year for the sum of £226,412 on behalf of the seven West Midlands authorities to DEFRA as part of their Air Quality Grant Programme 2010. This is to undertake the 'Low Emission Cities and Towns Programme'. This embodies five integrated projects as follows:

- ? Development of a regional Low Emissions Strategy
- ? Preparation of a Regional Low Emissions Strategy Supplementary Planning document
- ? Development of a Regional Best Practice Document on Procurement
- ? Consideration of Low Emission Zones, with trials being carried out in Birmingham
- ? Preparation of a Low Emissions Strategy Assessment Report

6.2 This was discussed at the City Region Chief Executives meeting on 19th May 2010,

to ensure all Chief Executives within the participating local authorities are aware of the application and objectives at an early stage, and prior to the commencement of the programme.

6.3 Providing the application is successful the West Midlands Authorities will recruit a technical/administrative officer, on a full time equivalent basis over 15 months to be employed by Walsall Council and funded by the grant. A low emission strategy specialist contractor will be recruited to oversee the delivery of the Programme on a 0.4 full time equivalent basis over 15 months, again contracted via Walsall Council. The Low Emission Strategies Assessment Report will be the subject of a competitive tendering process.

6.4 It is acknowledged that actually making significant reductions in vehicle pollutant levels is particularly challenging, and should the 'Low Emission Cities and Towns Programme' come to fruition it will be a key element of the air quality action planning process.

Appendix 1

Action	Details	Timescale	Cost/benefit	Priority
Reducing Vehicle Emissions				
Conduct a feasibility study of roadside emissions testing	Assess the viability of testing vehicle emissions at the roadside and issuing fixed penalty notices if vehicles fail test.	2010	Med/Low	3
Improve Walsall MBC vehicle fleet	Gradually replace older vehicles with cleaner more efficient vehicles. Seek to develop pilot schemes using alternatively fuelled/low emission vehicles in its fleet.	Ongoing	Med/Low	2
Discourage drivers from allowing engines to idle unnecessarily when parked and encourage drivers to drive more efficiently.	Improve driver awareness, particularly buses at bus station. Carry out campaign, put up signs etc.	2009 onwards	Med/Low	3
Freight Partnerships	Investigate viability of schemes to reduce traffic and /or emissions through regional freight partnerships for delivering goods to town centre businesses.	Ongoing	Med/Low	1
Reduce bus emissions	Encourage improvements to bus fleet. Seek to develop pilot schemes using alternatively fuelled/low emission vehicles or low emission zones.	Ongoing	Med/Low	1
Improving Public Transport to reduce traffic volumes				
Enhanced bus routes Showcase	Implement a programme of enhanced bus routes including both more routes and buses.	Ongoing	High/Med	2
Bus priority routes and enforcement	Increase the number and length of bus	Ongoing	High/Med	1

Action	Details	Timescale	Cost/benefit	Priority
	lanes and the number of enforcement cameras.			
Improving passenger information and bus stops	Real-time travel information at bus stops, improved bus shelters and lighting etc.	2009 onwards	Med/Low	2
Light Rail				
Extension of Metro link to Walsall.	Continue to support and facilitate the expansion and development of strategic mass transit servicing for key centres and development corridors.	2009 onwards	High/High	3
Heavy Rail				
Increase in passenger capacity of rail network	Investigate and encourage improvements in capacity and performance of passenger rail network.	Ongoing	High/Med	3
Improve Rail freight capabilities	Actively support improvements to rail freight network.	Ongoing	High/Med	3
Road Network Improvements				
Introduction of 'Red Routes' to ease congestion	Implement red route strategies	Ongoing	Med/Low	1
Introduce Urban Traffic Control system	Participate in the development of an Urban Traffic Control system.	Ongoing	High/Med	1
Prioritisation of lane sharing	Bus lane HGV sharing trials to commence during 2009	2009 on	Low	2
Seek improvements to traffic flow on motorway network	This falls primarily under the remit of Highways Agency, and includes gated access control of vehicle flows in respect of primary routes onto and exiting the motorway system.	Ongoing	Med/Low	1
Seek improvements to traffic flow on primary network	Target key areas of traffic congestion hot-spots through junction improvements.	Ongoing	Med/Low	1

Action	Details	Timescale	Cost/benefit	Priority
Measures to reduce traffic				
Manage number of spaces available in City Centre car parks	Seek to maintain the number of short stay car parking spaces in the Town Centre and promote sustainable parking facilities in conjunction with travel choice options.	Ongoing	Low/Low	1
Presumption in favour of mixed use development	Encourage mixed use developments that will assist in reducing the need to travel.	Ongoing	Low/Low	2
Consideration of air quality in respect of planning applications	When assessing planning applications the implications of the development on air quality will be taken into consideration.	Ongoing	Low/Low	1
Industry / Commerce				
Control of Industrial Emissions	Continue to regulate industrial processes.	Ongoing	Low/Low	3
Emissions from Chimneys	Continue to enforce provisions of Clean Air Act with respect to emissions of smoke from Chimneys	Ongoing	Low/Low	3
Boiler plant and chimney heights	Continue to enforce provisions of Clean Air Act with respect to chimney heights for new plant and smoke control.	Ongoing	Low/Low	3
Energy efficiency	Improve energy efficiency by encouraging energy efficiency schemes for domestic, commercial and council properties and activities, e.g. HEAT West Midlands.	Ongoing	Med/Low	2
Control of Bonfires	Enforce provisions of the Clean Air Act and Environmental Protection Act.	Ongoing	Low/Low	3
Promotion of Alternative Modes of transport				
Additional Park & Ride	Walsall MBC will investigate the development of bus based park and ride schemes where suitable opportunities exist.	Ongoing	Med/Low	1

Action	Details	Timescale	Cost/benefit	Priority
Promotion of Walking	Walsall MBC has developed a Walking Strategy to encourage people to walk as apposed to using other forms of transport.	Ongoing	Med/Low	1
Promotion of cycling	Walsall MBC has developed a Cycling Strategy to encourage people to cycle as apposed to using other forms of transport.	Ongoing	Med/Low	1
Promotion of Green Travel Plans	Continue to encourage and promote green travel plans for existing and proposed businesses, schools and council facilities.	Ongoing	Low/Low	1
Use planning conditions to promote Travelwise	Walsall MBC will, where appropriate, attach planning conditions relating to Travelwise to planning consents.	Ongoing	Low/Med	1
Strategy for Sustainable Travel	Walsall MBC to develop a Strategy for Sustainable Travel pursuant to s.31 Local Government Act 2003.	2009 onwards	Low/Med	2
Improving access to information regarding transport options.	Walsall MBC will continue to support schemes such as Help2Travel.	Ongoing	Low/Low	1