



Air Quality Strategy for Herefordshire and Worcestershire

Part 2 Supporting Information

Document Control

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1 Managing Local Air Quality

- 1.1 This Chapter considers the context in which this AQS Framework is developed and how it is to be implemented. An introduction to the UK Local Air Quality Management (LAQM) regime is provided. Those organisations involved in the management of air quality are identified and the collaborative mechanisms currently underway across Herefordshire and Worcestershire relating to local air quality are described.

European legislation

- 1.2 At a European level, The EU Framework Directive 96/62/EC on ambient air quality assessment and management came into force in 1996. The aim of the Directive is to protect human health and the environment by avoiding, reducing or preventing harmful concentrations of air pollution. This is to be achieved by the setting of limit values/and or alert thresholds, making information available to the public, and maintaining or improving air quality. The Framework Directive is supported by four “Daughter Directives” that set air quality limit values and alert thresholds for twelve pollutants.
- 1.3 As a part of the 6th Environment Action Programme, the European Commission undertook to prepare a Thematic Strategy for air quality, in order to inform future policy developments. In September 2005 the Clean Air for Europe (CAFE), published its Thematic Strategy and a draft proposal for a Directive of the Council and Parliament on air quality.
- 1.4 A revised EC Directive on ambient air quality now in force, and has replaced and consolidated all of the existing directives listed above. The new Directive streamlines the existing directives; confirms the existing obligations, but introduces some flexibility in meeting these obligations under some circumstances; and introduces new controls for fine particulate matter ($PM_{2.5}$). These include a concentration cap of $25 \mu\text{g}/\text{m}^3$ (as an annual mean) to be achieved by 2015, and an average exposure level of $20 \mu\text{g}/\text{m}^3$ for urban areas. Exposure levels in these urban areas must be reduced by 20% by 2020 relative to 2010 levels (measured as a three-year rolling mean). The new Directive will need to be transposed into UK law by May 2010.

UK Legislation

- 1.5 Historically, the control of air pollution has been undertaken by controlling major industrial processes, and prior to the 1990s, air pollution legislation was generally reactive to specific

pollution episodes. The Clean Air Acts of 1956 and 1968 (consolidated into the Clean Air Act 1993 (OPSI 1993) addressed smoke emissions from domestic coal burning and smoke from industrial stacks. The publication of the Environment Protection Act 1990 (OPSI 1990) introduced a more integrated approach to environmental protection and pollution control in the UK. With increased scientific understanding of emission sources, fuel advancements and technologies, air pollution policy and legislation has evolved quickly over the 1990s, with a radical new regime for the management of local air quality unfolding towards the end of the 1990s.

- 1.6 The Government's White Paper *This Common Inheritance* (DoE 1990) introduced a new direction for air quality control. This was to build upon the existing technology-based controls by adding an effects-based, risk management approach through the formulation of a series of air quality standards. The new framework led to the formulation of the Environment Act 1995 (OPSI 1995) (Part IV, Air Quality), the primary legislation for the process of air quality management.

National Air Quality Strategy

- 1.7 The first National Air Quality Strategy was published in 1997 (DoE 1997). The Strategy was last updated in 2007 (Defra 2007a), and continues to provide the framework for local government to assess ambient air quality in their locality against specific health-based standards for nine pollutants (nitrogen dioxide, PM₁₀, sulphur dioxide, benzene, lead, 1,3-butadiene, carbon monoxide, PAH and ozone). Seven of which (excluding ozone and PAH) are regulated through the Air Quality Regulations 1997 (HM Government 1998), 2000 (HM Government 2000), Air Quality (England) (Amendment) Regulations 2002 (HM Government 2002) and 2007 (OPSI 2007). Annex 1 in Part 2 provides information on the specific pollutants.

Local Air Quality Management in Practice

- 1.8 Under the Environment Act 1995, local authorities have a duty, in consultation with the County Council, to review and assess local air quality within their areas. This involves monitoring for a number of pollutants against national objectives. Guidance for conducting LAQM is provided by central government (Defra 2003a and Defra 2003b). Where any exceedences of the objectives are found, the local authorities are then required to declare Air Quality Management Areas (AQMA; under Section 83, Part IV of the Environment Act 1995) and to prepare Air Quality Action Plans setting out measures to reduce concentrations of air pollutants in pursuit of the objective levels. Government and non-government guidance is available for local authorities to assist with action planning¹.

¹ <http://www.uwe.ac.uk/aqm/review/index.html>

- 1.9 The focus of air quality review and assessments remains those locations where members of the public might reasonably be expected to be exposed over the averaging period of concern. Compliance with the air quality objectives is thereby determined by reference to the quality of air at any non-occupational, outdoor locations such as residential properties, schools, hospitals and public open spaces.

Role of Government, Agencies and Organisations

- 1.10 Improving local air quality across Herefordshire and Worcestershire is not only the responsibility of the six district local authorities and the County Councils through their respective planning, transport planning, environmental protection and other related functions. It is also the responsibility of central and regional Government (e.g. the Department for Environment, Food and Rural Affairs, the Department for Transport and the Regional Assembly) and agencies (e.g. the Highways Agency and Environment Agency). Others also play an important role in helping improve air quality through lobbying and constructive action, including local and regional organisations (e.g. Sustrans and environmental lobbying groups) and community groups. Individual citizens also play a role through personal choice (e.g. travel behaviour and consumer choices made).
- 1.11 The development of a Strategy should ensure that all the roles of those with a stake in improving air quality within Herefordshire and Worcestershire are identified.

Collaboration across Herefordshire and Worcestershire

- 1.12 The Herefordshire and Worcestershire Pollution Group is the central collaborative effort for this strategy. As a subgroup of the Chief Environmental Health Officers Group, it includes environmental health, scientific officers and, importantly, transport planners from the relevant constituent Local Authority departments. It enables consistency concerning local air quality management, declaration of any Air Quality Management Areas, monitoring and methods. Indeed, the group originated out of a desire to collaborate on an initial First Stage Air Quality Review and Assessment in 1998, following the new duty being placed on local authorities.
- 1.13 The system of local review and assessment of air quality, the development of the Local Transport Plan, along with strategic and local planning regimes, are the main processes with the need and opportunity for a wide scope of interested parties to consider impacts on air quality. There is a strong benefit in collaboration for technical issues and to ensure inclusion of air quality in other policy areas.

2 Air Quality Objectives

2.1 The table below illustrates the air quality objectives within Regulations in England for local air quality management.

Table 2.1 Air Quality Objectives (England)

Pollutant	Time Period	Objective	To be achieved by
Benzene	Running annual mean	16.25 $\mu\text{g}/\text{m}^3$	2003
	Annual mean	5 $\mu\text{g}/\text{m}^3$	2010
1,3-Butadiene	Running annual mean	2.25 $\mu\text{g}/\text{m}^3$	2003
Carbon Monoxide	Maximum daily running 8-hour mean	10 mg/m^3	2003
Lead	Annual mean	0.5 $\mu\text{g}/\text{m}^3$	2004
	Annual mean	0.25 $\mu\text{g}/\text{m}^3$	2008
Nitrogen dioxide	1-hour mean	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	2005
	Annual mean	40 $\mu\text{g}/\text{m}^3$	2005
Sulphur Dioxide	1-hour mean	350 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 24 times a year	2004
	24-hour mean	125 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 3 times a year	2004
	15-minute mean	266 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 35 times a year	2005
Fine particles (PM₁₀)	24-hour mean	50 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 35 times a year	2004
	Annual mean	40 $\mu\text{g}/\text{m}^3$	2004

3 AQMAs in Herefordshire and Worcestershire

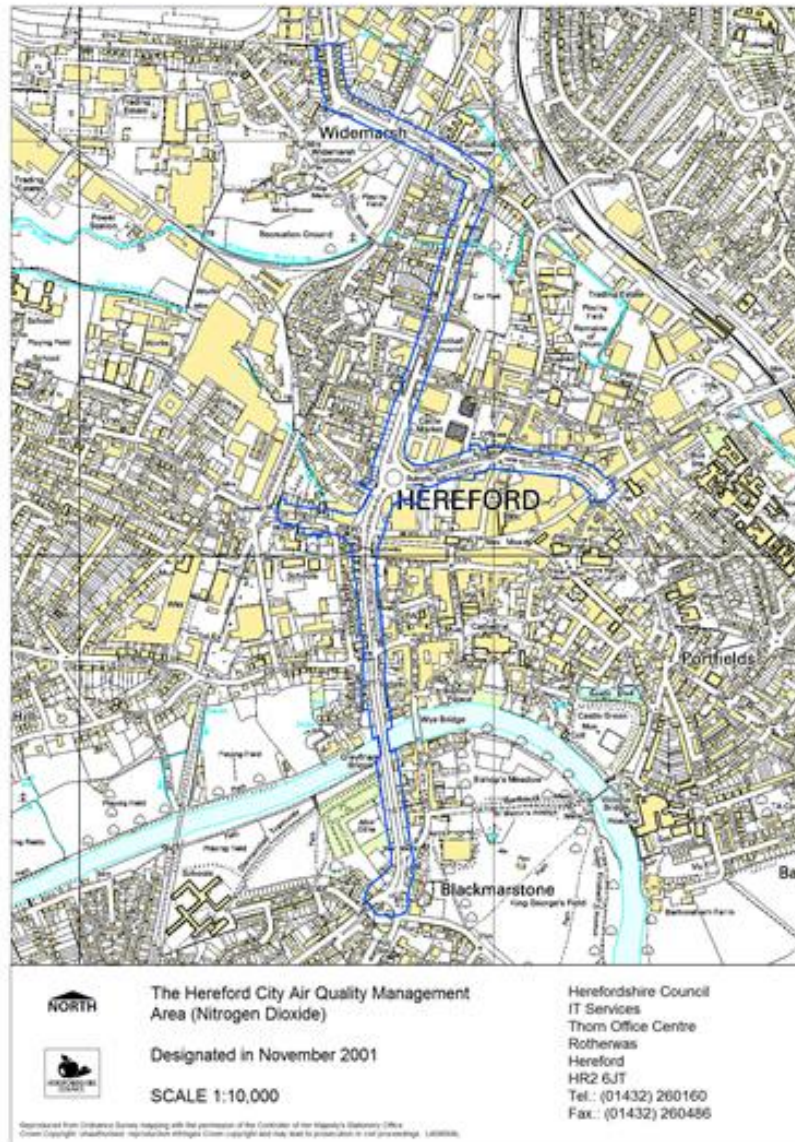


Figure 3.1. Herefordshire: Hereford AQMA (OS Licence Number 100024168 (2008))

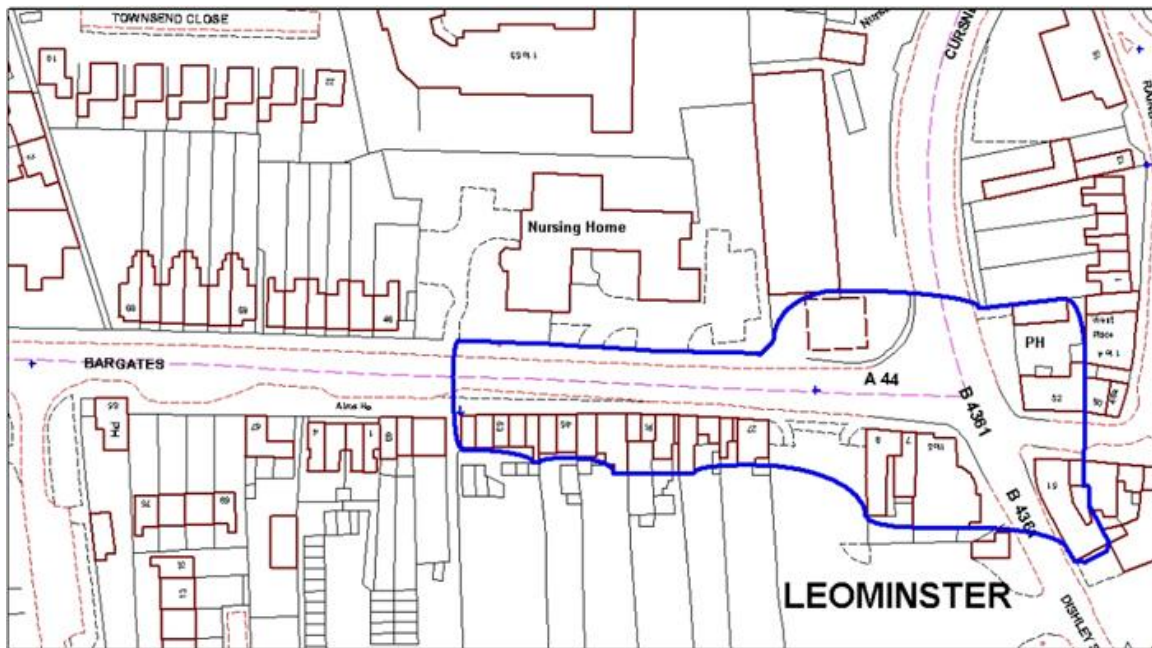


Figure 3.2. Herefordshire: Bargates (Leominster) AQMA (OS Licence Number 100024168 (2008))

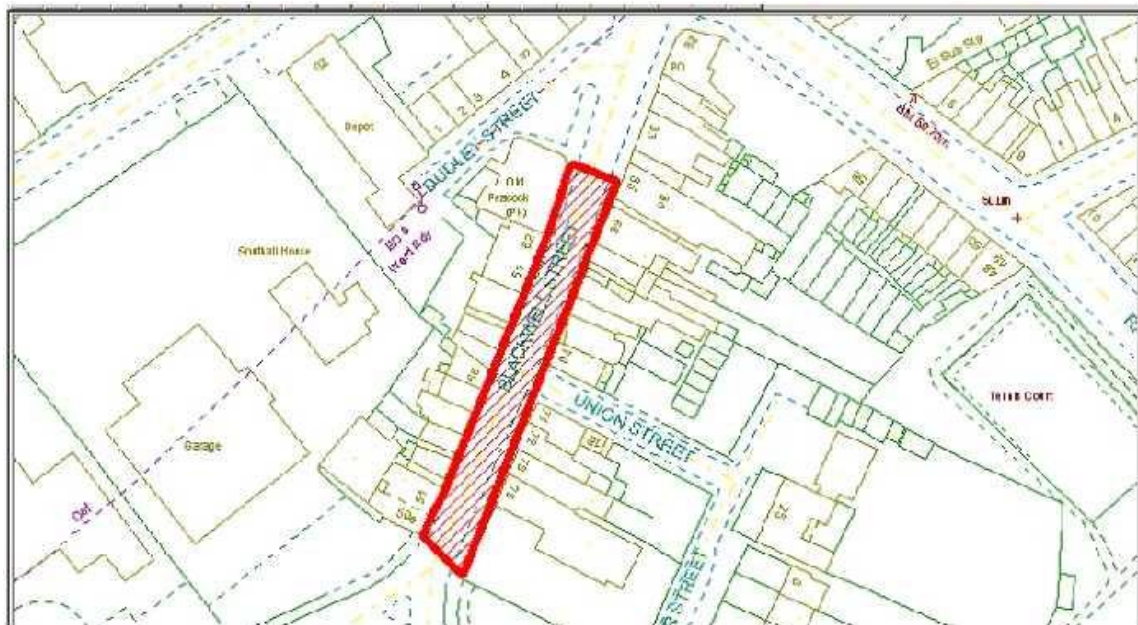


Figure 3.3. Wyre Forest: Horsefair AQMA (OS Licence Number 100018317.2006)



Figure 3.4. Wyre Forest: Welch Gate AQMA (OS Licence Number 100018317.2006)



Figure 3.5. Bromsgrove: Lickley End AQMA (OS Licence Number 100023519(2008))



Figure 3.6. Wychavon: Port Street (Evesham) AQMA (OS Licence Number 100024324)

4 Health Impacts of Air Pollutants

4.1 The table below summarises the main health and some environmental impacts of high concentrations of the national Air Quality Strategy pollutants. Ozone is included in the table, although ozone is not regulated by local authorities in the UK.

Specific pollutant	Potential effect on health and the environment
Particulate Matter (PM ₁₀ and PM _{2.5})	<p>Short-term and long-term exposure to particulate matter is associated with There is no threshold concentration below which there are no effects on the whole population's health. PM₁₀ roughly equates to the mass of particles less than 10 micrometres in diameter that are likely to be inhaled into the thoracic region of the respiratory tract.</p> <p>Recent reviews by the World Health Organisation (WHO) and Committee on the Medical Effects of Air Pollutants (COMEAP) have suggested exposure to a finer particles (PM_{2.5}), which typically make up around two thirds of PM₁₀ emissions and concentrations) give a stronger association with the observed ill-health effects, but also warn that there is evidence that the coarse fraction between (PM₁₀-PM_{2.5}) also has some effects on health.</p>
Nitrogen oxides (NO _x including NO ₂)	<p>Nitrogen dioxide (NO₂) is associated with adverse effects on human health. At high levels, NO₂ causes inflammation of the airways. Long-term exposure may affect lung function and respiratory symptoms. NO₂ also enhances the response to allergens in sensitive individuals.</p> <p>High levels of NO_x can have an adverse effect on vegetation, including leaf or needle damage and reduced growth. Deposition of pollutants derived from NO_x emissions contribute to acidification and/or eutrophication of sensitive habitats leading to loss of biodiversity, often at locations far removed from the original emissions. NO_x also contributes to the formation of secondary particles and ground level ozone, both of which are associated with ill-health effects.</p>
Ozone (O ₃)	<p>Exposure to high concentrations may cause irritation to eyes and nose. Very high levels can damage airways leading to inflammatory reactions. Ozone reduces lung function and increases incidence of respiratory symptoms, respiratory hospital admissions and mortality.</p> <p>Ground level ozone can also cause damage to many plant species leading to loss of yield and quality of crops, damage to forests and impacts on biodiversity.</p>
Sulphur dioxide (SO ₂)	<p>Causes constriction of the airways of the lung. This effect is particularly likely to occur in people suffering from asthma and chronic lung disease. Precursor to secondary PM and therefore contributes to the ill-health effects caused by PM₁₀ and PM_{2.5}. Potential damage to ecosystems at high levels, including degradation of chlorophyll, reduced photosynthesis, raised respiration rates and changes in protein metabolism.</p> <p>Deposition of pollution derived from SO₂ emissions contribute to acidification of soils and waters and subsequent loss of biodiversity, often at locations far removed from the original emission.</p>

Benzene	Benzene is a recognised human carcinogen which attacks the genetic material and, as such, no absolutely safe level can be specified in ambient air. Studies in workers exposed to high levels have shown an excessive risk of leukaemia.
1,3-butadiene	1,3-butadiene is also a recognised genotoxic human carcinogen, as such, no absolutely safe level can be specified in ambient air. The health effect of most concern is the induction of cancer of the lymphoid system and blood-forming tissues, lymphoma and leukaemia.
Lead (Pb)	Exposure to high levels in air may result in toxic biochemical effects which have adverse effects on the kidneys, gastrointestinal tract, the joints and reproductive systems, and acute or, chronic damage to the nervous system. Affects intellectual development in young children.

5 Planning Policy

UK Policy

- 5.1 Policy on land-use at a national level is the responsibility currently of the Office of Communities and Local Government (formally Office of the Deputy Prime Minister). With the recent evolution of the planning system in the UK, the requirement of central Government is to provide planning policy guidance, in the form of Planning Policy Statements (PPSs), which are replacing Planning Policy Guidance Notes, and oversee the development of Regional Spatial Strategies. The planning system remains plan-led in its approach and Planning Policy Statement 1 (PPS1; Delivering Sustainable Development) (ODPM 2005a) establishes the key objective of government policy for sustainable growth. Other key national guidance includes PPS11 (the development of Regional Spatial Strategies), PPS12 (Local Development Frameworks) and PPS23 (Planning and Pollution Control) (ODPM 2004). Reference is made to these key Planning Policy Statements in the remainder of this Framework Strategy.

Regional Spatial Strategy

- 5.2 At a regional planning level, Herefordshire and Worcestershire are encompassed within the Regional Spatial Strategy for the West Midlands (RSS11). The full West Midlands Regional Spatial Strategy (formerly RPG 11) was initially published by ODPM in June 2004. Following the publication of the Phase One Revision in respect of the Black Country sub-region a revised West Midlands Regional Spatial Strategy was issued in January 2008. As such, it guides the preparation of local authority development plans and local transport plans in the West Midlands up to 2021.
- 5.3 Within the Regional Spatial Strategy, the policy most relevant to air quality is policy QE4 C, which states that “*Local authorities and others should also encourage patterns of development which maintain and improve air quality and minimise the impact of noise upon public space. Artificial lighting should be used sensitively to aid safety whilst minimising pollution*”. The importance of the air quality management process is recognised in paragraph 8.45.

Regional Sustainable Development Framework

- 5.4 The West Midlands Regional Sustainable Development Framework (Sustainability West Midlands 2008) was first published in January 2005. The Assembly commissioned Sustainability West

Midlands to review the Framework in the light of the UK Sustainable Development Strategy "Securing the Future", published in March 2005, and to incorporate lessons learnt from the way the Framework has been used in practice since its publication. A new version of the Framework was launched at the Assembly's Annual General Meeting in July 2006. The West Midlands Regional Assembly is now responsible for taking forward the framework and monitoring progress against its objectives. Although air quality does not feature as one of the key themes of the Framework, a number of the themes have the potential to impact on local air quality across Herefordshire and Worcestershire.

- 5.5 This Framework, rather than being a separate strategy for sustainable development in itself, is designed to help all strategies, policies and plans to contribute to a sustainable future for the West Midlands. An aligned, consistent and mutually reinforcing approach to policy at regional, sub-regional and local level is essential to ensure sustainable development can be delivered.

Local Planning Policy

- 5.6 The development and implementation of local policy frameworks are of major importance to improving local air quality. Of greatest significance are the local transport planning, land-use planning and environmental protection areas of policy, which are all required to give due consideration to their impact on local air quality. This section considers in turn a number of local policy frameworks which are of major significance to the air quality climate across Herefordshire & Worcestershire.

Herefordshire Council Structure Plan

- 5.7 The Herefordshire Unitary Development Plan (UDP) was adopted on 23rd March 2007 and will guide development within the County until 2011. The UDP has been prepared to ensure consistency with Government Planning Statements and with the Regional Spatial Strategy and the Community Strategy for Herefordshire (Herefordshire 2007a). The UDP has the status of a Development Plan Document It will be operative as part of the Local Development Framework for a three year period from 23rd March 2007.
- 5.8 The Herefordshire Plan is a blueprint which maps out the vision of the county over the next 10 years. The Plan, which was conceived in 1998 when Herefordshire Council came into being, is a statement of key priorities for the authority and local communities to work towards in partnership.

5.9 The Plan identifies ten key areas to which the Partner organisations are all committed. The delivery of Herefordshire Council's obligations required by the national air quality strategy will compliment seven of the following ambitions of the Herefordshire Plan as highlighted in italics below:

- *“To improve the health and well-being of Herefordshire people” Ongoing monitoring work, drafting of air quality action plans, consultations on planning applications resulting in air quality mitigation measures.*
- *“To encourage communities to shape the future of Herefordshire” Public consultation exercises carried out in all stages of the air quality review and assessment process, attendance and contribution to the transport ambition group.*
- *“To develop Herefordshire as an active, vibrant and enjoyable place to be “Improvement of air quality will make Herefordshire a more enjoyable area to live in.*
- *“To protect and improve Herefordshire's distinctive environment” All aspects of the Council's role in local air quality management are aimed at improving the air quality in the County and therefore protecting its environment.*
- *“To develop an integrated transport system for Herefordshire” Much of the action planning work and the planning application consultation process encourages and promotes an integrated transport system. Joint working with the Transportation section ensures this.*
- *“To support business growth and create more and better paid work in Herefordshire“ In fulfilling its consultation and partnership working role, Environmental Health & Trading Standards liaise with the Council's Economic Development Section when consulting on air quality review and assessment. A member of the team also sits on the Council led 'Business Partnership Steering Committee' and the Marches Environmental Business Partnership, led by the local Chamber of Commerce.*
- *“To provide excellent education, training and learning opportunities in Herefordshire for all ages” Extensive air quality data is kept on the Council's web site. Also public consultation exercises at all stages, attendance at local area forums and regular attendance at the Herefordshire 6th form college to promote the environmental protection and air quality role of the Council.*

5.10 ²Policy DR9 in the Herefordshire UDP specifically refers to the consideration of air quality in relation to land use planning. This compliments national planning policy statement “PPS 23”. DR9 Air quality *“Development proposals which could contribute to the deterioration of air quality below acceptable levels, either locally or on a more widespread basis, will not be permitted unless adequate air quality enhancements or mitigation measures can be accommodated and demonstrated as part of the development. In assessing schemes regard will be had to both their operational impacts and to associated traffic generation. Where developments are sensitive to air quality are proposed, regard will be had to local air quality as a material consideration.”* Therefore, new planning applications are subject to this “DR9” policy.

² http://www.herefordshire.gov.uk/docs/Env_Progress_Report_Air_Quality_Herefordshire_April_2005.pdf

Worcestershire Structure Plan

- 5.11 The Worcestershire County Structure Plan (WCSP) (Worcestershire 2005) was adopted in June 2001. Transitional arrangements have been put in place which allow it to retain its development plan status and for most of its policies to be 'saved'. The Structure Plan, together with District Local Plans and the Minerals Local Plan comprise the development plan for Worcestershire up to 2011. Although there is no specific air quality policy within the Structure Plan, policies on managing car use, car parking, cycling and walking and other transport related issues are relevant to improving air quality in Worcestershire.

Malvern Hills DC

- 5.12 In Malvern Hills DC, the Local Plan was adopted in July 2006 providing the council's policies and proposals to guide the development and use of land within the district covering the period 1996-2011. Policy QL26 covers pollution control. *Planning permission will not be granted for development which might give rise to air, noise, light or water pollution, or cause soil contamination, where the levels of discharge, emission, ambient noise levels or continuous illumination are significant enough to cause harm or loss of amenity to other land, buildings or the natural environment. The effectiveness of proposed mitigation measures will be fully taken into account and may be the subject of conditions applied to any such development.* There is also a whole section on providing sustainable transport throughout Malvern Hills with a number of policy areas which will help make improvements to air quality.

Redditch BC

- 5.13 The Borough of Redditch Local Plan No. 3 (objections led to 3 public inquiries) was adopted in May 2006 although no specific reference is made to air quality policy; the Borough Council supports the move towards more demanding standards whereby environmental improvements are sought rather than the mere maintenance of the status quo. Further stating that in accordance with Environment Agency Guidance and the aim of the national Air Quality Strategy proposals for development which would adversely impact upon air quality will be resisted and the maintenance of air quality will be required and where possible, an improvement in air quality will be sought. It does make reference to Policy B(NE)5 *'any development that is likely to lead to an unacceptable increase in pollution by virtue of the emission of fumes, particles, effluent, radiation, smell, heat, light or noxious substances will not normally be allowed. Permissions for development will be conditional so as to minimise environmental damage. The Borough Council will be guided in these matters by the responses to consultation with the appropriate specialist agencies.'*

Wyre Forest DC

- 5.14 In Wyre Forest DC, the Local Plan was adopted in January 2005 and does include a policy relating specifically to pollution, though not specifically to local air quality. Policy NR10 states that *'development proposals which will or could potentially give rise to air pollution will not normally be permitted unless adequate mitigation measures are included to ensure that any emissions will not cause harm to land use, including the effects on health and the natural and built environment.'*

Worcester CC

- 5.15 In Worcester City DC, the Local Plan was adopted in October 2004 but does not make any specific reference to air quality policy or pollution control.

Bromsgrove DC

- 5.16 In Bromsgrove DC, the Local Plan was adopted in July 2006, but it does not include any specific reference to air quality policy. The Local Plan remained operational until September 2007, following the issue of a direction from the Secretary of State; most policies have been saved, and have remained in operation until they are replaced by policies in the new Development Plan Documents (DPD).

Wychavon DC

- 5.17 In Wychavon DC, the Local Plan was adopted in June 2006 but does not make any specific reference to air quality policy. However, it does state that *'Design, construction and the use of materials can mitigate against high levels of pollution, but a major impact on reducing pollution from road traffic can be made by locating new development near to existing facilities (such as schools and shops) and with access to public transport. For larger new developments reference will be made to the Council's Environmental Health Department and in particular consideration will be given to the Council's Review and Assessment of Air Quality to ensure compliance with National Air Quality Objectives.'*

6 Transport Planning Policy

UK Transport Policy

- 6.1 The Government's transport policy is encompassed within the White Paper 'The Future of Transport: a network for 2030' (DfT 2004), which considers the factors likely to shape travel and transport over the next thirty years. The White Paper considers how the Government will respond to the increasing demand for travel, whilst minimising the impacts on people and the environment. It recognises that the downward trend in nitrogen oxides and PM₁₀ emissions may level off and could start increasing again after 2015 unless further action is taken, and that there are parts of the UK where levels of nitrogen dioxide and PM₁₀ are expected to remain above EU Limit Values.
- 6.2 Various aims of the Transport Strategy are translated through local and regional transport policy, in particular through Regional Transport Strategies and LTPs. The Regional Transport Strategy (RTS) for the South West is to be encompassed within the forthcoming Regional Spatial Strategy (RSS). LTPs are the key mechanism for translating national policy at the local level.
- 6.3 The 10-year Transport Plan, published in July 2000 (DfT 2000), set out the Government's strategy on reducing congestion and the strategy for future investment in the public and private sectors to modernise the transport system. The Government envisaged public and private investment of >£120 billion to be delivered through public and private partnerships, resulting in a significant package of improvements including:
- rail use (as passenger km) and 80% increase in rail freight;
 - 50% increase in bottlenecks eased by targeted widening of 360 miles of the strategic road network;
 - 100 new bypasses on trunk and local roads to reduce congestion and pollution in communities;
 - 80 major trunk road schemes to improve safety and traffic flow at junctions;
 - 25 new rapid transit lines in major cities & conurbations, doubling light rail use;
 - 10% increase in bus passenger journeys, and
 - Extensive bus priority schemes, including guided bus systems and other infrastructure improvements, also benefiting coaches.

West Midlands Regional Transport Strategy

- 6.4 The Regional Assembly, or Regional Planning Body in each region in England, is required to produce a Regional Transport Strategy as part of its Regional Spatial Strategy. The Regional Transport Strategy is shaped by the delivery programmes of the Highways Agency and Network Rail and influences Local Transport Plans. A Regional Transport Strategy is a statutory requirement of the planning system, as set out in the Planning and Compulsory Purchase Act of 2004.
- 6.5 The West Midlands Spatial Strategy sets out what should happen, where and when up to 2021. Incorporating the Regional Transport Strategy (RTS), it focuses on policies that will improve the quality of life, including making the West Midlands a better place to live and work whilst maintaining and enhancing the environment. The RTS is integral to the Spatial Strategy's objectives, particularly in respect of supporting the economy, enhancing the quality of life and delivering both urban and rural renaissance. Improving transport in the region is a key element in delivering the Spatial Strategy.
- 6.6 The Regional Transport Strategy highlights the need for the regional transport network to be improved to facilitate a more sustainable pattern of development, improving accessibility and mobility, reducing the need to travel, providing better public transport links and enabling and encouraging sustainable transport choices (Sustainability West Midlands 2008). The West Midlands Transport Delivery Plan (TDP) draws together the Department for Transport's Public Service Agreement targets and the RTS, to assist decision-makers in identifying the linkages and inter-dependencies of each intervention, in order to assist the co-ordination of their delivery. It is expected that the Transport Delivery Plan will be updated in 2008/9.
- 6.7 The West Midlands Regional Transport Strategy is encompassed within the Regional Spatial Strategy; it emphasizes the need to improve accessibility and transportation across the region, and aids in the deliverance the West Midlands Region's five transport priorities.
- Promote a change of hearts and minds of the Region's population,
 - Make best use of the existing regional transport networks,
 - Provide a comprehensive public transport system that serves the urban areas,
 - Improve access to Birmingham International Airport and National Exhibition Centre, and
 - Ensure that the West Midlands is a reliable hub to serve regional, national and international connections.

6.8 There are ten RTS core policies that aim to achieve these objectives and the 2005 Transport Delivery Plan provides information on the status and progress with implementation of these policies.

- Policy T2 - Reducing the need to travel
- Policy T3 - Providing greater opportunities for walking and cycling
- Policy T4 - Promoting travel awareness
- Policy T5 - Development of an integrated public transport network where all people have access to high quality and affordable public transport services across the Region.
- Policy T6 - Development of a network of Strategic Park and Ride sites to reduce congestion in major centres, including the Worcestershire Parkway Station.
- Policy T7 - Management of car parking to reduce congestion and encourage more sustainable forms of travel.
- Policy T8 - Demand Management – manage peak demand on congested parts of the highway network, re-allocate highway space, and consider charging schemes in more congested centres.
- Policy T9 - Local and Regional transport authorities should work together to provide and maintain a strategic transport system.
- Policy T10 - Ensure the reliable movement of goods and services.
- Policy T11 - Support the further development of Birmingham International Airport as the main regional airport, and improve surface access by public transport.

Local Transport Plans: Herefordshire and Worcestershire

6.9 The LTP is the principal mechanism for delivering an improvement to air quality across the Counties and Districts.

Herefordshire Council

6.10 The Council's Local Transport Plan (LTP) (Herefordshire 2006b) contains an integrated transport strategy for Herefordshire, defining a 5 year programme of transportation measures. Like the UDP, the LTP considers the transport issues affecting the County and includes a number of policy statements. There is a requirement for the two plans to be complementary and fully integrated both in terms of strategic transport policies and detailed policy guidance. This has been achieved by a range of mechanisms, including the work of a Herefordshire Partnership thematic group addressing transport.

6.11 The transport strategy set out in the LTP and decisions taken on priorities for transport investment will have implications for the UDP. Similarly, planning decisions taken on land use proposals of the

UDP and by policy compliant planning applications will impact on the strategy of the LTP. The LTP covers the period 2006/7-2010/11 and remains consistent with the policies of the UDP. The LTP has developed a hierarchy of transport modes demonstrating commitment to securing a sustainable and integrated transport system which is accessible to all. This hierarchy, in order of highest priority, is set out below:

- Pedestrians and people with mobility difficulties
- Cyclists and public transport users
- Commercial/business users and powered two wheelers
- Car borne shoppers and coach borne visitors
- Car borne commuters and visitors

Worcestershire County

- 6.12 Worcestershire 2020 (Chapter 3.12 in the Worcestershire LTP2) sought to identify the local influences on LTP2 at the District level, identifying how each district is likely to develop up to 2020 based on existing plans and trends. It recognises that the transportation needs within each district/borough will differ and that the land use proposals contained within their Local Plans/Local Development Frameworks will create varying demands on the transport network (Worcestershire 2007).

Bromsgrove DC

- 6.13 The transport corridor between Bromsgrove and Birmingham is the busiest in terms of work related commuting in the County. The development of the Bromsgrove Technology Park (under construction at Central Technology Belt), proposals for Birmingham University/Queen Elizabeth Hospital, and the re-development of Pebble Mills will potentially increase travel demand on the A38 corridor. These development proposals are well located for access to the rail network, however, capacity issues on local rail services will need to be addressed to maximise use.

Malvern Hills DC

- 6.14 Strategic access to the Malvern Hills District is constrained by the limitations of crossing the River Severn, whilst an increasingly elderly population means that public and community transport provision is becoming more important. A key element of future development plans will be the need to seek to minimize the need to travel by providing affordable housing nearer to the planned employment sites within the District.

Redditch BC

- 6.15 Redditch suffers from fewer transport constraints than other areas of the County, with generally good public transport networks, walking links, and little traffic congestion. This is due to its major development as a designated “New Town,” planned to take overspill population from the West Midlands conurbation, resulting in major investment in transport networks. Future development is planned to be concentrated to the north of the town, with major proposals being the commercial leisure development proposed for the Abbey Stadium site.
- 6.16 The outcome of a public enquiry will have a significant influence on the implementation of the LTP2 strategy for the Redditch area, as the development has been shown to have significant implications for the local transport network. This would involve the construction of the Bordesley Bypass, a strategic road scheme proposed within the Worcestershire Structure Plan but not of sufficient priority to warrant construction within the LTP2 period if the Abbey Stadium development were not to go ahead.
- 6.17 The road network in South-east Redditch suffers from traffic congestion, as well as the A435 (T) through Studley and other settlements in Warwickshire, and there is a need to review these issues and identify an appropriate way forward now that the Bypass proposal has been dropped by the Highways Agency.

Wychavon DC

- 6.18 Wychavon is a predominantly rural District with local facilities being focussed on the three market towns of Droitwich, Evesham and Pershore. Planned future development is also concentrated on these towns, other than the proposed employment site at Throckmorton Airfield to the North of Pershore. The main policy focus within the District is the enhancement and regeneration of the market towns, and in particular ensuring that the range of facilities to serve their local communities and rural hinterland are maximised. LTP2 will seek to support these policies by ensuring that transport improvements are progressed within these settlements, and that access to facilities is improved.
- 6.19 The further development of the agricultural sector will place potential environmental pressures upon local communities, with heavy goods traffic travelling along sub-standard routes, and therefore the LTP2 strategy will seek to ensure that these impacts are minimised through the implementation of appropriate policies. The Vale of Evesham Freight Quality Partnership, formed jointly with neighbouring authorities and seeking to provide links between freight operators and local communities, will be an important mechanism to achieve an improved local environment.

Worcester CC

- 6.20 The greatest emerging pressures on the transport network within the County are concentrated within Worcester. The current Local Plan already contains a number of development proposals that will add to existing transport pressures within the city and other development proposals are coming forward as follows:
- Employment Sites – Worcester Woods, Grove Farm, Tolladine Goods Yard, Newtown Road corridor
 - Housing Developments – Diglis Basin, Earls Court, Worcester Porcelain, various smaller proposals.
 - Retail Development – Lowesmoor
 - University College expansion onto former Hospital site
 - Library proposals adjacent to new UCW site
- 6.21 The developments at Grove Farm and Earls Court on the Western side of the River Severn, and will potentially add to existing traffic pressure on the existing river crossings. The greatest opportunity to manage this additional travel demand is through the Sustainable Travel Town project, which commenced in 2004/05 and with funding through to 2008/09. Experience from the Sustainable Travel Town project will be used to develop the approach taken to promote sustainable travel across the County, particularly through the design and marketing of new developments, travel planning activity and infrastructure support.

Wyre Forest DC

- 6.22 The Wyre Forest area contains the three main towns of Bewdley, Kidderminster and Stourport-on-Severn, which have high levels of interaction due to their proximity. The main employment site is the former British Sugar site, located between Kidderminster and Stourport-on-Severn and forming part of the Stourport Road Employment Corridor.
- 6.23 This 24 hectare site is programmed for development during the LTP2 period and beyond, and will place significant pressure upon the transport network. The situation in Stourport-on-Severn has already been the subject of a transportation study that identified traffic congestion as a major local problem. The identified solution, the Stourport Relief Road, demonstrates a positive Benefit to Cost ratio and represents value for money, although it is recognised that this scale of funding is unlikely to be available for such a scheme in the LTP2 period. Therefore, a further transportation study will be undertaken, to identify the appropriate transport strategy that is necessary to allow for economic regeneration of the Stourport Road corridor to be achieved. The outcome of this study is likely to

be a major scheme funding bid for the identified strategy for implementation during the LTP3 period (2011-16).

- 6.24 Wyre Forest DC have also published an Economic and Development Regeneration Strategy for Kidderminster, which identifies how these bodies wish to see the town develop in the future. In addition to the British Sugar site, key employment sites include the Clensmore Street area to the north of the town centre, access to which is predominantly via the A451 Horsefair (designated AQMA). Therefore any re-development of this area will require a transport strategy that will result in a reduction of traffic within Horsefair. Further development is also planned for Kidderminster town centre. This will seek to enhance the town centre as a retail and leisure destination, placing greater demands upon the local transport network. Within Stourport-on-Severn, a number of development sites within the town centre are coming forward, with a mix of residential, employment and retail uses proposed. These developments will add pressure to the already congested local road network, and place greater importance upon the promotion of sustainable travel for local journeys.

7 Climate Change Policy

7.1 Currently the policies aiming to safeguard human health and protect sensitive ecosystems by improving air quality are largely separate to the policies to reduce emissions of pollutants in order to limit climate change. There are, however, many linkages between the two types of pollution. The pollutants may have common emission sources and some pollutants affect both climate change and human health. In addition, the development and implementation of AQAPs across the County will need to consider the potential impact of measures proposed to reduce concentrations of air pollutants on climate change gases. Measures to address both policy areas are likely to be complementary, although the potential exists for measure to conflict. As such, policies to ensure that impacts for both climate change and LAQM are considered in parallel are included in this Strategy.

UK Climate Change policy

7.2 The Government's approach to climate change is underpinned by the Energy White Paper (Defra 2007b), which contains the ambitious goal of reducing the UK's carbon dioxide emissions by 60% by 2050, through promoting energy efficiency and the increased use of renewable energy. The UK Climate Change Programme (Defra 2006b), published in 2000, details both policies and measures which the UK is using to reduce emissions of greenhouse gases, and it explains how the UK proposes to adapt to the impacts of climate change.

7.3 As well as commissioning scientific research on climate change, climate modelling and work on impacts and adaptation, the Government also funds various programmes to encourage business to reduce emissions. Examples include the Climate Change Levy, Climate Change Allowances and Energy Trading Schemes, and funding for the Carbon Trust and the Energy Saving Trust. Regional and local government can encourage the uptake of such programmes, and the development of Regional Planning Guidance (RPG) has committed local authorities and energy suppliers to support a reduction in carbon dioxide emissions.

Planning and Climate Change: Draft PPS Planning and Climate Change

7.4 Planning and Climate Change (ODPM 2008f) sets out how spatial planning should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences (adaptation). This PPS reflects the expectations of the Government's Planning Green Paper, 'Planning – delivering a fundamental change', ensuring that decisions are

made at the appropriate level and effectively. This PPS does not assemble all national planning policy relevant or applicable to climate change, where there is any difference in emphasis on climate change between policies in this PPS and others in the national series, this is intentional and this PPS should take precedence. Regional planning bodies and all planning authorities should prepare and deliver spatial strategies that (ODPM 2008f):

- make a full contribution to delivering the Government's Climate Change Programme and energy policies, and in doing so contribute to global sustainability;
- in enabling the provision of new homes, jobs, services and infrastructure and shaping the places where people live and work, secure the highest viable standards of resource and energy efficiency and reduction in carbon emissions;
- deliver patterns of urban growth that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, overall, reduce the need to travel, especially by car;
- secure new development and shape places resilient to the effects of climate change in ways consistent with social cohesion and inclusion;
- sustain biodiversity, and in doing so recognise that the distribution of habitats and species will be affected by climate change;
- reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and,
- Respond to the concerns of business and encourage competitiveness and technological innovation.

West Midlands Climate Change Policy

- 7.5 The West Midlands Regional Assembly has signalled its commitment on Climate Change by signing up to the Nottingham Declaration, indicating its intent to work and contribute to addressing this global issue at a regional level. The Nottingham Declaration on Climate Change is a public statement to take action to tackle climate change (WMRA 2008c).
- 7.6 At a regional level, the Sustainability West Midlands Climate Change Partnership Project (SWMCCP) (Sustainability West Midlands 2007) is perhaps the most important regional approach to reducing the causes and responding to the impacts of climate change. Focussing on introducing Climate Change Adaptation into key Regional projects to distinguish it from Climate Change Mitigation on which SWM works in partnership with Energy West Midlands. As part of that partnership and working with the Regional Housing Partnership with funding from the Energy Savings Trust, SWM has just launched the Sustainable Housing Action Programme which will introduce Energy Efficiency Best Practice into new and refurbished housing projects.

- 7.7 Action at a local level has the potential to reduce pollutant emissions as well as carbon dioxide and other greenhouse gas emissions. Programmes underway across Herefordshire and Worcestershire are considered in the following section.

West Midlands Regional Energy Strategy

- 7.8 The West Midlands Regional Energy Strategy has four headline objectives:

- Improving energy efficiency
- Increasing the use of renewable energy resources
- Maximising the uptake of business opportunities
- Ensuring focussed and Integrated Delivery and Implementation

- 7.9 A number of existing mechanisms and programmes are designed to reduce energy use. Part of the Strategy's role is to influence these to ensure that they provide a good match to the region's specific needs. Targets have been set against the headline objectives. These include specific reductions in CO₂ from industry, commercial and public sector, domestic and transport. Actions are set out for working towards and achieving these objectives, many of which will have a positive impact on local air quality.

West Midlands Climate Change Action Plan (Consultation Draft) 2007 - 2011

- 7.10 The West Midlands Climate Change Action Plan (WMRA 2008c) provides the strategic framework for action to address the challenges posed by climate change. The implementation will be led by the Regional Assembly, it proposes for organisations to take action and encourage the work of others. This document sets out the vision of the West Midlands to secure a sustainable future for the West Midlands by becoming a low-carbon economy and adapting to climate change, a number of objectives have been achieved to fulfil this commitment. However, this document states that the actions put forward in this plan are restricted to those activities that can be taken at regional level within the next three years. Stating further that such a document as this can capture some of the actions required; further complementary actions need to be taken locally.

- 7.11 Each action set out by the action plan will have a lead organisation and that organisation will be responsible for ensuring its delivery, defining the steps that will need to be taken and securing the necessary funding. This action plan has identified six regional climate change priorities designed to guide early action, with each supported by a number of regional actions:

- Planning
- Economy
- Implementation

- Leadership
- Communication
- Targets and Monitoring

Herefordshire and Worcestershire Climate Change Policy

- 7.12 Herefordshire Council and Worcestershire County Council have signed up to the Nottingham declaration on Climate Change. The Nottingham Declaration on Climate Change is applicable to local authorities and states that climate change will be a key driver of change within their community. Herefordshire Council have implemented their own version (the Herefordshire Declaration) which will be based on the Nottingham Declaration but will be signed by local (Herefordshire) organisations (including non- local authority bodies). The Herefordshire Declaration on Climate Change will be open to all non-local authority bodies within Herefordshire including schools, colleges, businesses, the voluntary sector, farm estates, housing associations and sports centres.
- 7.13 Worcestershire, in addition to the Nottingham Declaration have signed up to a “Worcestershire Climate Change Pledge” which enables organisations, businesses and community groups to demonstrate their commitment to tackling climate change. Organisations can choose to sign up to as many actions as they wish. They cover topics such as reducing energy use, staff travel planning, minimising waste, raising awareness and assessing the impacts of climate change. Each year, organisations that have signed up to the pledge report on their progress. These pledges to improve on CO₂ emissions are also likely to have positive impacts on local air pollutants.

Herefordshire Council Climate Change Strategy

- 7.14 The Herefordshire Climate Change Strategy (Herefordshire 2007b) is the 2020 vision of the Herefordshire Partnership. “Herefordshire will be a place where people, organisations and businesses working together within an outstanding natural environment will bring about sustainable prosperity and well being for all.”
- 7.15 This Strategy is one of a nest of documents (Democs Report, Baseline Data Report and Action Plan) that make up Herefordshire Council’s approach to tackling climate change. This strategy sets out the vision of Herefordshire for climate change in terms of understanding and initiatives, while ensuring such an approach is coherent and appropriate. It sets out overall mission statements, key issues that specifically relate to Herefordshire, and indicates some initial solutions. This strategy provides an initial summary into some of the factual baseline data that informs this strategy and the action plan into Herefordshire’s approach to climate change. The report sets out the core

principles and key elements of the Partnerships tackling of climate change and provides the rationale for the action plan.

Herefordshire Council Climate Change Action Plan

7.16 This four page document (Herefordshire 2007b) sets out what the Herefordshire Partnership sets out to achieve under five headings, rationale and who's responsible:

- awareness
- education
- taking responsibility
- Efficiency (energy and water use)
- Good Practice

7.17 This document also offers the idea of Carbon Management Action Plans, which establish an emissions inventory, set emission reduction targets, address issues of carbon management, and develop specific action plans to implement carbon reduction measures and the monitoring and reporting of subsequent progress. In addition to combined reporting of progress of the Core Partners each year.

Herefordshire Council Carbon Management Action Plan 2005/6 to 2011/12

7.18 The aim of this document is to define the steps that Herefordshire Council will take to secure its contribution to the carbon dioxide reduction targets as part of the Herefordshire Partnership Climate Change Strategy. This Action Plan is separated into two three year phases, with phase one running 2005 to 2008 and Phase two running from 2009 to 2012 (Herefordshire 2007b).

7.19 This document commits Herefordshire Council to achieve a 12.5% reduction in the 2002 carbon dioxide equivalent emissions by 2012, with a commitment to reduce emissions by 20% by 2020. This document sets out the following:

- Carbon management strategy including its vision, broad objectives, context, targets and resources.
- Emissions baseline and projections, including Herefordshire councils CMAP scope, baseline and business-as-usual projections
- Projected Baseline and Options, including corporate buildings and schools, Landfill gas, transport and street lighting
- Summary of options, including overall carbon reduction and cost savings

- Strategic Options, including emissions trading, the UK emissions trading scheme, energy services, West Mercia Services, budget funding categories and affordable warmth
- CMAP Governance and Ownership, including main roles and responsibilities and reporting and evaluation.
- Communications Plans, including communications actions
- Carbon management action plans, including phases one and two
- Milestones phase 1

Worcestershire Climate Change Strategy

- 7.20 This document (Worcestershire County Council 2004) has been developed by and for the people of Worcestershire in order to manage and mitigate the direct causes of the damaging effects of climate change. It sets out how this challenge is going to be addressed by taking immediate action to for example reduce consumption of fossil fuels, increase energy efficiency and renewable sources of energy, combined with less reliance on oil and gas resources. This document is the commitment of the Worcestershire Partnership to tackle the causes and effects of climate change within Worcestershire Community Strategy.
- 7.21 This is the draft County Climate Change Strategy that covers the period 2005-2011, a purpose to provide a framework for actions by members of Worcestershire and its Partnership to:
- Raise awareness of the issue of Climate Change & its impact on the County
 - Reduce Climate Change causing gas emissions across the County by a minimum of from 2005 levels by 2011 and 20% by 2020
 - Adapt to and plan for the inevitable impacts of Climate Change on the County
- 7.22 Setting out what can be done to achieve these aims, identifying areas of activity that will have the largest impact and highlights the importance of raising awareness and education. This strategy acknowledges the greatest reduction will be through energy efficiency, going on to state ways in which this can be achieved. While recognising the contribution of waste minimisation, increased adoption of renewable energy and identifying the need for a programme to collect good quality data to refine existing GHG emission estimates. The key objectives have been identified as:
- Increase awareness and education about Climate Change and how to tackle its causes and impacts
 - Encourage major authorities and businesses in the County to lead by example in taking action to reduce climate change gas emissions and in adapting to climate change
 - Ensure both mitigation and adaptation to climate change is addressed by all relevant policies and plans in an integrated way

- Source funding for initiatives aimed at reducing climate change gas emissions and dealing with the impact of climate change
- Lobby for changes in legislation to support such initiatives
- Share expertise existing and being developed in the County both in terms of measures to reduce emissions and measure to adapt to Climate impacts

Climate change strategies in the local authorities of Worcestershire

Bromsgrove DC

- 7.23 In Bromsgrove, Climate Change is covered under the Better Environment Theme Group which sits within the Local Strategic Partnership Board. One of the issues on the Key Deliverables & Community Improvement Plan is climate change with the priority being '*To reduce greenhouse gas emissions and adapt to impacts of climate change*'. A number of actions have been proposed relating to improving energy efficiency, implementing a travel plan for Bromsgrove, as well as actions to adapt to climate change. A number of 'measures of success' are included which link to Local Area Agreement Targets, and in some cases the indicators included in this strategy.

Malvern Hills DC

- 7.24 The Council and its partners have committed to a plan of action to bring about a significant reduction in the district's dependence on fossil fuels by identifying practical actions that will reduce carbon emissions and build greater resilience and self reliance in key fields such as food and energy supply. A group of local people have recently started working together on this project. The initiative, called "Transition Malvern" is designed to equip local communities for climate change. More information can be obtained from www.transitionmalvern hills.org.uk.

Redditch BC

- 7.25 Redditch Borough Council has signed up to both the Worcestershire Climate Change Pledge and the Nottingham Declaration. There have been a number of achievements in terms of actions to reduce climate change emissions since 2006 including:
- improved energy efficiency within council buildings
 - solar panels installed on the town hall roof
 - "Switch it off week" (internal communications with staff)
 - Partnerships with several agencies to provide discounted home insulation
 - Refunding planning applications for home micro-generation

- 7.26 Redditch Borough Council are currently working on an action plan to ensure the Council becomes more sustainable and fulfils its commitments under the Nottingham Declaration.

Wychavon DC

- 7.27 Wychavon DC approved a draft Climate Change Action Plan in July 2008 with significant input from both the Carbon Trust and the Energy Savings Trust. The actions are largely based on reports and recommendations from the Energy Saving Trust and Carbon Trust regarding Wychavon's current approach to climate change and energy use in Council buildings. Once the action plan is agreed, Wychavon DC will monitor and report progress through quarterly performance reports. A number of measures have been proposed to assess success over the lifetime of the plan including:

- energy consumption in the Civic Centre and Community Contact Centres
- NI185: carbon dioxide reductions from local authority operations
- NI186: carbon dioxide emissions per head in Wychavon (DEFRA provide this data)
- NI187: tackling fuel poverty
- financial costs and savings made.

Worcester CC

- 7.28 Worcester City Council addresses climate change within its community Strategy (second edition covers the period of 2007-2012). One of the four priority projects is '*Addressing Climate Change and Adapting to its impacts*'. Within this document, the Worcester Alliance has pledged to educate people as to the causes and effects of climate change and encourage the reduction of greenhouse gas emissions by its member organisations, as well as preparation for the impacts that climate change will bring to the city. Climate change is acknowledged by the City Council as a major cross-cutting theme affecting all city council functions and as such there is to be a Sustainability Supplementary Planning Document covering climate change as part of the LDF planning process.

Wyre Forest DC

- 7.29 Wyre Forest District Council signed the Worcestershire Climate Change Pledge in December 2005. A Climate Change Action Plan has been developed which addresses the Council's carbon dioxide emissions, and the impact that climate change will have on the district. The Climate Change Action Plan commits to a number of measures including developing and implementing a staff travel plan, measures to improve energy efficiency of council activities, using local suppliers to reduce transport emissions and minimising waste production.

National Indicators

7.30 In October 2007, the Government announced a set of 198 indicators that would represent its priorities for local authorities over the next three years (Energy Saving Trust 2008). In a significant development 14 indicators have been set out for local authority action on climate change, under the heading of environmental sustainability. One of the key responsibilities for local authorities will be the mitigation of climate change, the headline definitions for the national indicators relating to climate change and fuel poverty are outlined below:

- Carbon dioxide reduction from Local Authority operations (NI 185, PSA 27)
- Per capita carbon dioxide emissions in the LA area (NI 186, PSA 27)
- Adapting to climate change (NI 188, PSA 27)

In addition, one of the indicators relates to local air quality, but is linked to CO₂ emissions reductions from Local Authority operations.

- Level of air quality – reduction in nitrogen oxides and primary PM₁₀ emissions through LA estate and operations (NI194, PSA 28)

7.31 These indicators represent Government decisions on national priorities to be delivered by and through local government, working alone or in partnership. Every tier of local government including County Council Local Strategic Partnerships will report performance against each of the 198 indicators. This set of indicators is the only measure on which central government will performance manage outcomes delivered by local government working alone or in partnerships as all other sets (including Best Value Performance Indicators and Performance Assessment Framework indicators) have been abolished.

8 Other Policy Frameworks

- 8.1 There are a number of policy areas not already covered, which have the potential to be synergistic to the overall aim of this strategy to improve air quality and maintain good air quality. Conversely some of these policy frameworks cause potential conflicts with this aim. This chapter therefore discusses some of these wider policy frameworks, within which air quality will need to be considered, and vice versa.

Regional Economic Strategy and Spatial Strategy

- 8.2 The Regional Economic Strategy and Spatial Strategy seeks to encourage the development of high-growth employment sectors and the modernisation of existing traditional industries. Economic development is promoted in the areas of greatest need through regeneration zones and high technology corridors, whilst high value-added sectors are promoted through the development of business clusters.
- 8.3 The West Midlands Economic Strategy for 2004–2010 (Advantage West Midlands 2008) sets out a Vision for transforming the West Midlands into a world-class region by 2010. The Strategy builds on the original West Midlands Economic Strategy (Creating Advantage) published in 1999 and the subsequent Agenda for Action (2001). It focuses on the delivery of key actions involving a wide range of partners all of whom are fully committed to working together and meeting the challenges before them.

Community Planning

- 8.4 In 2001, the Government issued guidance for local government on the development of Local Strategic Partnerships (LSPs) (ODPM 2008a) to promote the 'social, economic and environmental well-being' of the areas they serve. Through the development of LSPs, County Councils and District Councils working in partnership with business, the private sector, community and voluntary sectors have developed Community Strategies to pursue the legislative requirement to promote 'well-being'.

Bromsgrove DC

- 8.5 The Bromsgrove Community Plan is a ten-year strategy written by the Bromsgrove Partnership concerned with addressing issues important to residents, the business community and visitors to

Bromsgrove District. It focuses on the way in which services are delivered and how they can be improved. Under the theme 'Consider your Environment' there is an action to reduce pollution and land contamination as well as to improve public transport, walking and cycling networks and encourage people to use these. Key targets include a 15% reduction of car travel to schools within 5 years of a Travel Plan being adopted; new major employers, retail or leisure developments to progress a travel plan as part of any planning application and to increase safe walking & cycling to work and school by 20% & 100% respectively.

Malvern Hills DC

- 8.6 The Sustainable Community Strategy is an overarching strategy for the future of Malvern Hills District. The original Community Strategy for the District covered the period 2003 to 2006. Vision 21 has reviewed the original Community Strategy and has produced a draft Sustainable Community Strategy 2006 - 2021. Priorities for Malvern Hills have been identified as addressing climate change, providing housing to suit everybody's needs and economic viability. Other issues identified include providing a better environment for today and tomorrow, and improving health and wellbeing.

Redditch BC

- 8.7 In April 2003, the Redditch Partnership began to oversee the delivery of a new community strategy for Redditch, looking forward to the year 2020. In the 'Better Environment' section, there are no actions which relate to air quality specifically, despite the consultation response highlighting air pollution as a key issue for local people. There is, however, an action to '*Develop climate change programme for the county with the aim of reducing greenhouse gas emissions by promoting energy efficiency, renewable energy and waste minimisation and also of facilitating adaptation to the impact of climate change on the county*'.

Wychavon DC

- 8.8 Wychavon's Community Strategy 'Shaping the future together', contains the vision and priorities for the Wychavon district from 2007 to 2010, setting out how a number of organisations are working together to improve the quality of life for everyone who lives in, works in or visits the district. Under the theme 'A Better Environment' there are no actions which relate specifically to air quality, although actions to reduce climate change emissions are included, which could have a beneficial impact on local air pollutants.

Worcester CC

- 8.9 The Community Strategy for Worcester 2007-2012 sets out the Worcester Alliance's vision and desired outcomes for the city of Worcester. Under the theme 'A better environment for today and tomorrow', there are no targets relating to air quality, but there is one relating to climate change which pledges a 'Reduction in green house gas emissions and adaptation to the impacts of climate change'

Wyre Forest DC

- 8.10 "Making a Real Difference" is the Community Strategy for Wyre Forest DC (2008-2014) which aims to set out how the Local Strategic Partnership will meet the diverse needs of Wyre Forest's existing residents and improve quality of life, while also safeguarding the prospects of future generations. Under the theme, 'A Better Environment for Today and Tomorrow' one of the priorities is '*To reduce greenhouse gas emissions and adapt to the impact of climate change*'. The link between environment and transport is also noted, with a mention of the two AQMAs in Wyre Forest being traffic related.

Herefordshire Council

- 8.11 The Herefordshire Community Strategy sets out aspirations for the County for 2020 and how they might be achieved. The Herefordshire Community Strategy also acts as Herefordshire's Local Agenda 21 Plan and Regeneration Strategy and is closely integrated with the emerging Local Development Framework for the County. Two of the five guiding principles are to '*Integrate sustainability into all actions*' and to '*Protect and improve Herefordshire's distinctive environment*'. Actions which may be relevant for this Air Quality Strategy include an action to '*Reduce traffic congestion through access to better integrated transport provision*' (within the '*Economic Development*' theme) and a key issue of '*protecting the environment*', (within the theme, '*Safer and Stronger Communities*').

Environmental Protection

Environmental protection & local industrial regulation

- 8.12 Within Herefordshire and the Worcestershire local authorities, Environmental Health departments are principally responsible for delivery of LAQM.
- 8.13 Of relevance to LAQM are other areas of environmental policy work, notably the control of pollution from industrial premises, contaminated land and noise pollution. There are statutory responsibilities relating to these policy areas, and many of the local authorities have strategies or protocols relating

to pollution control and the management of noise and land pollution. Environmental Health professionals have delegated powers to address certain potentially polluting activities such as bonfires and the use of authorised fuels. Powers under the Environmental Protection Act 1990 (OPSI 1990), Clear Air Act of 1993 (OPSI 1993) and Environment Act 1995 (OPSI 1995) make clear provision for actions to reduce emissions to air, and so are important tools for LAQM.

Pollution Prevention and Control

- 8.14 Pollution Prevention and Control is a regulatory regime for controlling pollution from certain industries. Since April 2008, PPC has been incorporated into the framework of the Environmental Permitting Regulations (EPR). The EP regime has streamlined and combined separate waste and pollution control (PPC) systems, resulting in a single environmental permit and common procedures.
- 8.15 The EP Regulations identify which processes require an environmental permit. Currently these are:
- an installation – one of more than 20,000 facilities carrying out the activities listed in Schedule 1 of the EP Regulations. These include activities in the energy, metals, minerals, chemicals and waste sectors.
 - a waste operation – any disposal or recovery of waste which is not exempt under the EP Regulations, or
 - a mobile plant - carrying out one of the above activities or waste operations.
- 8.16 Local authorities regulate about 80 different types of installation. These include glassworks and foundries, rendering plant and maggot breeders, petrol stations and concrete crushers, sawmills and paint manufacturers. In several cases, only installations over a certain size need a permit.
- 8.17 For many installations (known as ‘Part B’), local authorities only deal with air pollution. For some (known as ‘A2’), they must look at wider environmental impacts. Other installations (known as ‘A1’) are regulated by the Environment Agency. They are usually larger or more complex.
- 8.18 If the authority decides to issue a permit, it must include conditions setting out how pollution is to be minimised. Government guidance has been published for each type of installation on what are likely to be the right pollution standards. Under the law, the standards must strike a balance between protecting the environment and the cost of doing so.
- 8.19 Local authorities’ rate most regulated installations as high, medium or low risk. This is based on the likely environmental impact if something were to go wrong, and how reliable and effective the operator of the installation is. The annual charge is lower for low- and medium-risk installations.

Industrial Regulation – Environment Agency (EA)

- 8.20 The Environment Agency (EA) is responsible for the enforcement and regulation of the larger and more complex industrial installations operating across the region. The EA works with local government, the Highways Agency and others to help deliver the Air Quality Strategy in England and Wales, particularly where industrial installations have been identified as contributing to exceedences of national air quality objectives. In Herefordshire and Worcestershire, emissions from industrial installations no longer contribute significantly to any of the current designated AQMAs. However, the EA is an important partner in any efforts to reduce pollutant concentrations, and as such is an important partner in efforts to improve air quality across the County.
- 8.21 The Environment Agency has several roles in protecting air quality, including
- incorporating local air quality issues into the Local Environment Agency Plans;
 - regulating A1 industrial installations;
 - informing the public of air quality in their area and
 - air quality monitoring in the event of specific industrial incidents.
- 8.22 The EA is a statutory consultee of the review and assessment process and on the development of air quality action plans, contributing to local air quality management through the provision of information and the regulation of emissions to atmosphere from major industrial installations. The Environment Agency and the Local Government Association produced 'The Working Better Together Protocol No. 1' (Environment Agency 2003), which established how the Agency and each local authority should work together to reduce emissions from Agency and local authority permitted installations so that objectives are not exceeded.

Special Areas of Conservation (SACs)

- 8.23 Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
- 8.24 There are four SACs within Herefordshire and 2 within Worcestershire. The four in Herefordshire are Downton Gorge, River Clun, River Wye and Wye valley Woodlands. Within Worcestershire, the sites are Bredon Hill and Lyppard Grange Ponds. Maps of all SACs can be found at <http://www.incc.gov.uk/page-23>.

- 8.25 In general terms, issues relating to ecosystems and pollution are from critical loads, which are an excess of nutrients and/ or pollutants which ultimately lead to loss of biodiversity. Calculation of critical loads exceedences is carried out by the UK National Focal Centre in accordance with protocols agreed under CLRTAP. Analysis shows the rate of reduction in nutrient nitrogen critical load exceedences is much less than that for acidity. This is mainly due to the relatively low rate of reduction in ammonia (NH₃) emissions. Ammonia is now the dominant factor in driving nitrogen deposition in many parts of Europe. Within Europe, the principal legislative driver for the reduction of transboundary air pollution, and therefore critical loads exceedences, is the National Emissions Ceilings Directive (NECD). The EC Habitats Directive and Birds Directives deliver further drivers to protect ecosystems of high conservation value such as SACs.

Health Protection Agency

- 8.26 The Health Protection Agency (HPA) is an independent body charged with protecting health and the general well-being of the population at large. Although the Agency does not monitor air quality, it does provide specific advice to UK Government Departments and Agency's on human health impacts of pollutants. Information on local air quality is of interest and importance to the HPA, which will benefit from being consulted on the Air Quality Strategy for the County.
- 8.27 In Herefordshire and Worcestershire, the Herefordshire & Worcestershire Health Protection Unit have merged with the Black Country Health Protection Unit as of 1 April 2007. The new unit is called the West Midlands West HPU and is the most relevant first contact point for information relating to health in Herefordshire and Worcestershire.

Primary Care Trusts

- 8.28 Local Primary Care Trusts (PCTs) are locally managed primary care bodies providing primary and community services on the ground. From 2006 the relevant PCTs are the Herefordshire PCT and the Worcestershire PCT, the role of which, in the context of local air quality, is to:
- Act as a consultee on PPC applications to operate installations that have the potential to impact upon air quality;
 - Advise and inform sensitive individuals about air quality, and
 - Advise the public of the role that local government plays in regulating dark smoke and nuisance (odour and smoke).

9 Key Development Proposals in Herefordshire and Worcestershire

- 9.1 This Chapter is intended to provide an insight into some of the key developments underway or proposed across the Counties of Herefordshire and Worcestershire. Only the more major developments are identified here, which may have a significant impact on air quality. Individual local authorities need to judge whether air quality is a concern in relation to each individual planning application received. The Planning Protocol issued as part of this strategy will assist in identifying developments which may have an impact, and determining the process by which those impacts are assessed and evaluated.

Bromsgrove DC

Longbridge Area Action Plan

- 9.2 The size of the development opportunity at Longbridge and the role it has to play in helping address strategic and regional needs is significant. Initial policies in relation to the area are set out in the Longbridge Area Action Plan (AAP) which provides policy backing for delivering 10,000 jobs, a minimum of 1,450 new houses (35% of which will meet the Government's affordability criteria), new education facilities, retail, leisure, community and recreation uses, all underpinned by quality public transport facilities and infrastructure.
- 9.3 The plan seeks to support the growth and development of the A38 Central Technology Corridor, a regional designation that seeks to capture inward investment in the higher technology business and innovation. With regard to housing demand, the AAP can make a significant contribution to helping meet RSS housing targets, particularly on brownfield land.
- 9.4 In relation to regional transport needs, the AAP proposes an ambitious set of improvements to the public transport 'offer' for both bus and rail, including enhanced facilities and better connected and more frequent services. The AAP also allocates a site for a Strategic Park and Ride facility serving the Birmingham to Redditch rail corridor, as well as a new high quality bus corridor to improve accessibility to and from Frankley.
- 9.5 A final essential component of the AAP is centred upon creating a real heart and focus for the new development. This will be done through the creation of a local centre which will provide a major new educational facility, a range of new retail outlets, a mix of commercial, leisure, cultural and community uses and a new public transport interchange.

- 9.6 It is estimated that the redevelopment will require a 15-year regeneration programme at an estimated development cost of over £700 million and the joint working of landowners, the local councils, Regional Development Agency, CTB, the local community and other key stakeholders to achieve this ambitious but deliverable strategy.
- 9.7 The agreed objectives include the following:
- **Objective 1:** To establish sustainable communities, which embody the principles of sustainable development and meet current and future social, economic and environmental needs in a balanced and integrated way.
 - **Objective 4:** To implement an integrated and sustainable transport infrastructure strategy for Longbridge, which secures appropriate investment in key public transport improvements and road infrastructure and supports the effective management of sustainable travel patterns across the site.

Bromsgrove Town Centre Redevelopment

- 9.8 Bromsgrove District Council has identified that a holistic approach to the redevelopment of the town centre is required, taking into account the prime sites for regeneration, and including a systematic consideration of other opportunities.
- 9.9 An Issues and Options Report has been issued as part of the LDF process, which sets out a range of issues relevant to the town centre and proposes possible actions for each issue identified through consultation. The report seeks views on a number of options including:
- The town centre defined by re-establishing a street market;
 - The development of small, independent and niche retailers;
 - Expanded retailing so the town can compete with other shopping centres;
 - A vibrant town centre in the evenings;
 - An improved quality of environment in the town centre;
 - More people living in town; and,
 - Improved accessibility and quality of public services in the town centre.
- 9.10 One of the environmental objectives set out in the proposals is to *Protect and enhance the quality of water, soil and air quality.*

Malvern Hills DC

- 9.11 There are currently no major developments of significance for air quality in Malvern Hills.

Redditch BC

- 9.12 There are currently no major development of significance for air quality in Redditch Borough. However, there will be new housing and employment development in the Borough within the period up to 2026. The details will be included in the Regional Plan which is currently being finalised. In terms of housing, it is likely that in the region of 3300 new dwellings will be required plus at least 3300 adjacent to the town (but situated within Bromsgrove/ Stratford Districts). New employment sites and social infrastructure such as schools will be in addition to the above allocations.

Wychavon DC

- 9.13 The South Worcestershire Joint Core Strategy identifies a number of sites in Evesham, Pershore, Droitwich and near the Worcester/ Wychavon boundary for housing and employment growth. Many of the proposed sites will require air quality assessments to determine their impact on air quality. In Evesham, the impact of any major new developments on the existing Air Quality Management Area will be of particular concern.

Worcester CC

- 9.14 Within Worcester, planning permission has been granted for the following developments, which may have an impact on air quality (either in terms of increased traffic, or increased exposure):
- New Sainsbury's superstore and car park, Malvern Road (at Bransford Road junction), St Johns, Worcester. Work has already started on road development to accommodate this.
 - Tolladine Goods Yard, bottom of Tolladine Road, Worcester - approx 6 industrial units - B1 & B2. This development is nearing completion, including new road layout and traffic lights.
 - Diglis development, off Diglis Road/Diglis Dock - approximately 700 apartments, restaurants, boat repair yards and a hotel. Roughly 300 apartments have already been built, along with the boat repair area and restaurant.
 - University of Worcester - new city centre campus, Castle Street, Worcester (to include new library at The Butts, Worcester, and student accommodation at Castle Street, Worcester). Most of the demolition works are now complete and piling has started at the Castle Street site with an archaeological dig still ongoing at The Butts site. Completion is due for 2012.
- 9.15 In the future, there is likely to be major expansion to the North West, South, North East and North of Worcester. There will also be work undertaken through the Masterplan on key city centre areas such as Shrub Hill, Deansway, The Butts and City Walls Road.

Wyre Forest DC

- 9.16 There are a number of new developments within the Worcester City Council area which have the potential to impact on air quality, and as such have been highlighted in the 2008 Air Quality Progress Report. The developments range from a residential developments (Puxton Drive, Kidderminster; 46 dwellings, Chapel Street, Kidderminster; 33 Flats, Broad Street, Kidderminster; 27 residential units, Bewdley Road North, Stourport on Severn; 150 residential units, Blackwell Street, Kidderminster; 36 residential units) to a Tesco Supermarket in Stourport on Severn and some new industrial units in Kidderminster. In addition, the council is aware of a number of other proposed developments for which planning permission has not yet been formally sought.

Herefordshire Council

- 9.17 There are a number of new developments in Herefordshire which have been included in the 2008 Progress Report and have required an air quality assessment mainly due to traffic generation. Some may potentially impact on existing AQMAs, for example 500-600 houses on the former SAS camp at Lower Bullingham, 60 houses on the Old Whitecross School site, a new school at Three Elms and the new Asda store on A49 all have the potential to impact on the Hereford AQMA. There is also a new residential development of 425 houses on the former MOD site which may impact on the Bargates AQMA. There are other developments, which have also been assessed in terms of their impact on air quality, including residential developments (Bullinghope, Holmer and Ledbury Road in Hereford), widening of the A4013 from single track to two lanes and the Robson Jam site in Ledbury being changed to a cider processing plant due to Bulmer relocating there.

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11 Glossary and Abbreviations

API	Advanced Pollution Instrument
AQC	Air Quality Consultants
AQS	Air Quality Strategy
AQMA	Air Quality Management Area
AQAP	Air Quality Action Plan
BC	Borough Council
BPEO	Best Practicable Environmental Option
CAFÉ	Clean Air for Europe
CC	County Council
DA	Detailed Assessment
DC	District Council
Defra	Department for Environment, Food and Rural Affairs
DETR	Department of Environment, Transport and the Regions
DfT	Department for Transport
FQP	Freight Quality Partnership
GoWN	Government Office of the West Midlands
HGV	Heavy Goods Vehicle
IPPC	Integrated Pollution Prevention and Control
LAQM	Local Air Quality Management
LDD	Local Development Document
LDF	Local Development Framework
LEZ	Low Emission Zone
LSP	Local Strategic Partnerships
LTP	Local Transport Plan
MAQU	Mobile Air Quality Unit
NAQS	National Air Quality Strategy
NO ₂	Nitrogen dioxide
NO _x	Nitrogen oxides
NSCA	National Society for Clean Air and Environmental Protection
ODPM	Office for the Deputy Prime Minister
OPSI	Office of Public Sector Information
PPC	Pollution Prevention and Control
PPS	Planning Policy Statement
PR	Progress Report
RPB	Regional Planning Body
RPG	Regional Planning Guidance
RSS	Regional Spatial Strategy
RTS	Regional Transport Strategy
SAC	Special Areas of Conservation
SWMCCP	Sustainability West Midlands Climate Change Partnership
TEA	Triethanolamine
TDP	Transport Delivery Plan
UDP	Unitary Development Plan
USA	Updating and Screening Assessment
WCA	Waste Collection Authorities
WDA	Waste Disposal Authorities
WCSP	Worcestershire County Structure Plan
WMRA	West Midlands Regional Assembly