Wyre Forest Climate Change Strategy

Contents **Page**

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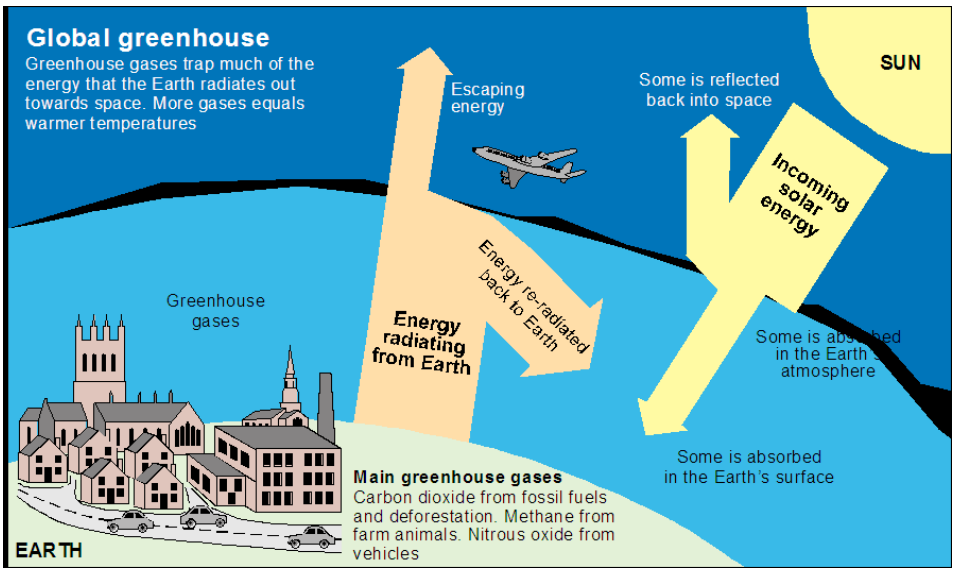
Introduction

The Earth's climate is changing. The most recent Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) leaves us in no doubt that human activity is the primary driver of the observed changes. The main human influence on global climate is emissions of greenhouse gases such as carbon dioxide (CO_2). Earth has warmed by 0.74°C over the last century; around 0.4°C of this warming has occurred since the 1970s. Mean global temperatures are likely to rise between 1.1 and 6.4°C above 1990 levels by the end of this century, depending on our emissions. This will result in a further rise in global sea levels of between 20 and 60cm by the end of this century, continued melting of ice caps, glaciers and sea ice, changes in rainfall patterns and intensification of tropical cyclones.



A study* into the impacts of climate change in Worcestershire, commissioned by the Worcestershire Partnership, revealed that the county's climate has also changed over the last century. For example, Worcestershire's annual temperature has risen by 0.6°C since the 1900s and we have seen an increased intensity of rainfall events. The county's climate is expected to carry on changing, with continuing changes in our temperature and rainfall patterns and increased frequency of short duration extreme weather events, such as storms and floods, predicted. As an example, the 2007 floods cost Worcestershire over £150 million, with many Wyre Forest households and businesses affected. Whilst a single such event cannot be attributed to climate change, the frequency of flooding events is expected to increase.

The extremity of further climate change, locally and globally, is likely to depend on future levels of emissions of climate change gases. The more we do now to reduce emissions, the less extreme the expected impact. The issue of Peak Oil further increases the need to reduce our dependence upon oil and gas and switch to low carbon alternatives. Peak Oil will occur when oil extraction rates peak and subsequently decline, due to increasing global demand and decreasing production rates, driving up costs. Although we cannot accurately predict when this will occur, some analysts predict this point will be reached within the next few years. This could have a huge impact, affecting our travel, food supplies, energy use and other aspects of our daily lives.

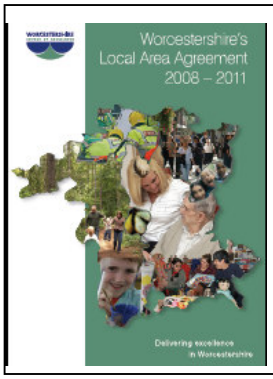
Taking action to tackle climate change can provide numerous benefits. For example, improving the energy efficiency of our homes can help combat rising fuel costs and tackle cold and damp associated health problems as well as reducing emissions. For the business sector, climate change may provide opportunities, for example in the environmental technologies sector.

Research carried out through the Worcestershire Citizen's Panel in 2007 shows that there is a high awareness of the issue of Climate Change throughout the county, including Wyre Forest. 87% of Wyre Forest residents surveyed are concerned about climate change and 84% think it is important that action is taken to tackle climate change. These issues will affect all of the district's diverse

communities- young and old, urban and rural, disabled and able bodied, and all ethnic backgrounds- and it is vital that we ensure all are able to access services and take action to tackle climate change in Wyre Forest.

Tackling Climate Change in the UK, Worcestershire and Wyre Forest.
The UK Climate Change Act passed into law into November 2008. This includes a legally binding target to reduce carbon emissions from 1990 levels by 80% by 2050. A carbon budget system will cap emissions over 5 year periods; the cap levels are due to be announced in the spring 2009 budget. Regionally, a West Midlands Climate Change Action Plan has been developed as a first step in a programme of work to ensure that regional working addresses the challenges posed by climate change.

At the County level, the Worcestershire Partnership has made tackling climate change a key cross-cutting issue throughout its Sustainable Community Strategy. The Worcestershire Climate Change Task Group has developed the Worcestershire Climate Change Strategy and Pledge, which many key county organisations have signed up to. The Worcestershire Local Area Agreement (LAA), a three year agreement negotiated between key partner organisations to tackle key issues in the county, includes a number of targets to tackle climate change. These are outlined below, with further details provided in Appendix 1.



Climate Change National Indicators (NIs) in the Worcestershire Local Area Agreement

NI186 Reducing per capita CO_2 emissions in each Local Authority area
NI187 Tackling fuel poverty
NI188 Planning for the impacts of climate change

Other relevant indicators include:
NI175 Access to services by public transport, walking and cycling
NI193 Reducing the amount of municipal waste landfilled
NI189 Reducing the risk of flooding

Wyre Forest Matters and Wyre Forest District Council have both signed up to the Worcestershire Local Area Agreement. They are key to tackling climate change issues within the district. One of the priorities of the Wyre Forest Matters Sustainable Community Strategy is to reduce greenhouse gas emissions and adapt to the impact of climate change.

The Wyre Forest Climate Change Strategy
The Wyre Forest Climate Change Strategy has been developed to provide a framework for tackling climate change in the Wyre Forest district during 2009-11. It is aligned with the Worcestershire Climate Change Strategy, mirroring its structure, and incorporates action to help meet the relevant LAA targets within Wyre Forest. In February 2009, approximately 40 Wyre Forest stakeholders attended a Climate Change Seminar; this strategy aims to address many of the issues raised. A draft strategy was circulated to stakeholders for comment in March 2009.

The strategy has three main sections, each addressing a key overarching issue:

- Raising awareness about the issue of climate change.
- Reducing Climate Change Gas Emissions in Wyre Forest.
- Adapting to the impacts of climate change in Wyre Forest.

Each section has been split into key themes to address the issues in different sectors. Each key theme includes further information about the current situation within Wyre Forest, examples of local good practise and details of relevant targets and aims.

Each year, a Wyre Forest Climate Change Action Plan will provide details of work being undertaken to deliver the aims of this strategy. Progress will be reported annually to relevant Boards and Committees.

Raising awareness about the issue of climate change.

Effective awareness raising is a vital part of tackling climate change and is the subject of the first section of this strategy. Activity will cover the formal education sector as well as awareness amongst our workforces and in the community. Climate change is an issue for all of Wyre Forest's diverse communities and awareness raising activity will need to be inclusive and tailored according to the audience. Awareness raising activities are also integrated into the themes on reducing greenhouse gas emissions and adapting to the impacts of climate change.

Whilst surveys have shown a high level of concern about climate change in Wyre Forest and the rest of Worcestershire, a significant decrease in CO2 emissions has yet to occur. Increased, more effective, awareness of the urgent need to take action is needed, together with clear, consistent, practical advice to help people actually make the necessary changes.

Key Theme 1: Raise awareness about the issue of climate change with the Public, Community and Partnership Organisations and Businesses

Why is this Important?

All sectors of the community will need to take action to tackle climate change; such is the scale of the challenge. Effective awareness raising can help the general public understand the positive changes they can make in different aspects of their lives. The public also expect community, public and private sector organisations to demonstrate leadership on this issue.

Where are we now?

Research carried out in 2007 shows that there is a high awareness of the issue of Climate Change throughout the county, including Wyre Forest:

- 87% of Wyre Forest residents surveyed are concerned about climate change.
- 84% think it is important that action is taken to tackle climate change.
- 77% agree that they can personally help to limit the effects of climate change.

However, only 46% of Wyre Forest panellists agreed that climate change is already having an impact in Worcestershire, compared to 60% in the county as a whole and up to 70% in some districts.

Case study: Switch it off.

Each year, Wyre Forest residents, schools and organisations take part in Switch It Off week, which runs throughout Worcestershire, Warwickshire and Coventry. The week raises awareness about how everyone can reduce electricity use. It culminates in a 2 hour Big Switch Off, where everyone is asked to make a special effort to switch off unnecessary lights and appliances. In 2008, Central Networks recorded a drop of 22MW during the Big Switch Off- equivalent to switching off the power in over 3,000 typical 3 bed homes for a year. This emphasises that small changes can make a huge difference.

What are we aiming to achieve in Wyre Forest?

To increase awareness of climate change in the district and translate this into significant action in our homes, businesses and organisations.

What do we need to do?

1.1 Lead by example by increasing the number of Wyre Forest organisations signed up to the Worcestershire Climate Change Pledge. The Pledge includes specific steps organisations can take to reduce their own emissions and make their activities climate change resilient.

1.2 Encourage staff and members of Wyre Forest organisations to tackle climate change, both at work and at home.

1.3 Help, advise and resource practical actions that people can take, tailoring the information provided according to the intended audience.

1.4 Implement the Warmer Worcestershire project, using the information from the aerial thermal imaging survey (to be carried out in early 2009) to help raise awareness about heat loss from properties in the district and to help deliver targeted energy efficiency improvement measures.

1.5 Help develop the 'transition town' movement (a community based approach to reducing reliance on fossil fuels) in the district.

1.6 Actively participate in county-wide awareness programmes and activities, such as the annual Switch It Off campaign.

1.7 Develop a network of community champions and help them raise awareness about climate change in their own communities.

Key Theme 2: Raise awareness about the issue of climate change through Education settings

Why is this Important?
Developing knowledge, understanding, values, attitudes and skills, in both formal and informal education settings, will be vital as we prepare to meet the challenges of climate change. This will help lay the foundations for further action in the family, community and work environment.

Where are we now?	**Case study:**
Various organisations already work with Wyre Forest schools on sustainability issues, including the county and district councils, Wyre Forest Discovery Centre and Bishops Wood Centre (nr Stourport). As well as participating in activities at these centres, many schools have also taken part in programmes such as Ecoschools, the Switch It Off Campaign and curriculum projects such as Creative Responses to Climate Change. The Worcestershire Partnership's Learning for Sustainability strategy sets out a framework for this area of work for the next 5 years	**Wyre Forest Schools are Going for Green** In Wyre Forest, forty-five schools are participating in the Ecoschools programme. Eight of these have achieved the prestigious Green Flag award.  For example, St. John's First School in Kidderminster was the first county school awarded a permanent Green Flag. They have a democratically elected ECO- action team; the children have worked together on projects to improve the school grounds, save water and energy and much more.

What are we aiming to achieve in Wyre Forest?
Everyone involved in education, formal and informal, at all levels, will play a key role in creating a more sustainable future, locally and globally.

What do we need to do?

2.1 Wyre Forest organisations to actively participate in work to deliver the county-wide Learning for Sustainability strategy, which aims:

- To promote the understanding of sustainability, its relevance and potential across all educational settings through a focus on whole organisation culture, curriculum, campus and community
- To place schools, nurseries, youth clubs, colleges and the University in Worcestershire as essential, integral parts of a sustainable community
- To act as a conduit for support around the *DCSF Sustainable Schools Framework* and the other key delivery mechanisms
- To support educational settings in making reductions in CO_2 through a focus on energy, transport, water, purchasing and waste
- To coordinate an improved level of support for children and young people, to help them make informed sustainable choices, communicate effectively, play a lead role and model what is possible
- To communicate the vital importance of local and global biodiversity to a sustainable future and the need to play a proactive stewardship role
- To maximise the impact of the expertise and resources within Worcestershire through partnership working and to ensure consistent long term commitment, resources and funding

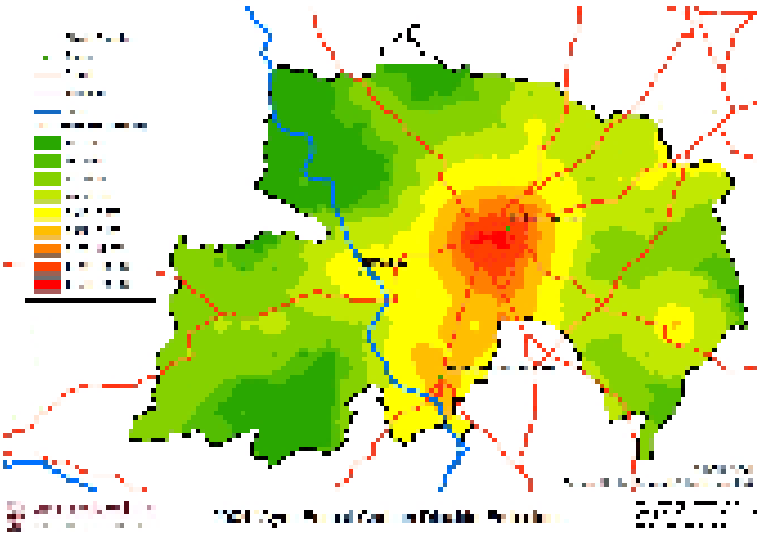
Reducing Climate Change Gas Emissions in the Wyre Forest district.

Current Wyre Forest CO_2 Emissions

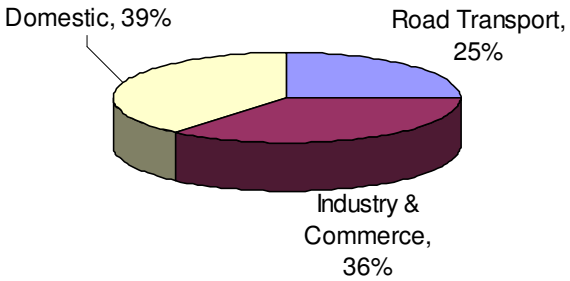
The map on the right shows the main sources of CO_2 emissions in the Wyre Forest district.

The highest concentrations of emissions are from our towns, main roads and industrial estates.

Central government now provide CO_2 emissions data for each Local Authority area. The 2005 data was used as the baseline for Worcestershire's emissions reduction targets.



Wyre Forest CO2 emissions by sector (2005)



The pie chart to the left shows the main sources of emissions by sector in Wyre Forest District in 2005. This strategy mainly focuses upon the reduction of CO_2 emissions as these make up the greatest proportion of climate change gases. Actions to reduce methane emissions from waste disposal are also included.

Reducing $C0_2$ Emissions in Wyre Forest

The Worcestershire Local Area Agreement includes a target to reduce per capita CO_2 emissions by 9% from 2005 levels by 2011. This will come from a mixture of national measures (7.1%) and local measures (1.9%). The table below shows the CO_2 savings needed, split by sector, to achieve a 9% reduction in Wyre Forest. It also gives examples of national and local measures underway or needed to help achieve this.

Sector	Total CO_2 reduction needed in Wyre Forest by 2011	Example of national measure	Example of local measure
Domestic	21,510 tonnes	Changes to Building Regulations	Local insulation schemes
Industry & Commerce	19,620 tonnes	Carbon emissions trading schemes	Advice for local businesses
Road Transport	13,500 tonnes	Fuel Duty Escalator	Cleaner transport fleets

The following pages of this strategy set out plans to reduce emissions from these different sectors.

Key Theme 3: Improving Home Energy Efficiency

Why is this important?
The domestic sector accounts for approximately 39% of CO2 emissions in the Wyre Forest. Most of these emissions come from the energy used to heat and power our homes. It is estimated that 15% of Wyre Forest households are living in fuel poverty, needing to spend more than 10% of their income to heat their homes properly. This figure rises to 27% in our most deprived wards. There is great potential to reduce CO2 emissions and tackle fuel poverty, as well as the associated health problems, by improving the energy efficiency of our housing stock.

Where are we now?
A large proportion of the district's existing housing stock is in need of improvement in terms of adequate insulation & energy efficient heating & lighting systems. The Home Energy Conservation Act 1996 (HECA) requires District Councils to work to improve the energy efficiency of existing homes in their area by 30% by 2012. By April 2008, Wyre Forest had achieved an improvement of almost 28%. Various grant and subsidised insulation schemes are in operation the district and free low energy light bulbs are distributed. There is still plenty of potential to further improve the energy efficiency of the district's housing and to encourage more energy efficient behaviour amongst our householders.

Case study: Free insulation with Wvre 65

The Wyre 65 scheme offered free loft and cavity wall insulation for householders aged 65+ in the district (living in properties in council tax band A-E). The scheme ran for 18 months until March 2009 and lead to the installation of around 640 insulation measures. This should save approximately 300 tonnes of CO2 and £90,000 on energy bills per year. Wyre Forest District Council is launching a new Wyre 60 scheme, for those aged 60+, in April 2009.

What are we aiming to achieve in Wyre Forest?
Contribute to the local delivery of National Indicator 186 (per capita CO2 emissions). In Wyre Forest district, this equates to a reduction, as a result of local measures, of at least 4541 tonnes of CO2 from the domestic sector by 2011. In addition, contribute to the delivery of National Indicator 187 (Tackling fuel poverty) by improving the energy efficiency of households in receipt of means tested benefits.

What do we need to do?

3.1 Continue the delivery of home energy advice to householders in the district.
3.2 Lead by example- encourage members of Wyre Forest organisations to insulate their homes where possible and use low energy light bulbs.
3.3 Actively participate in county wide awareness campaigns, such as Switch It Off week, and organise local awareness raising activity on home energy use throughout the community.
3.4 Increase the number of energy efficiency measures in the district, including:

- 80% of Wyre Forest homes using at least 4 low energy light bulbs by 2011.
- 500 installations of loft insulation in Wyre Forest each year.
- 500 installations of cavity wall insulation in Wyre Forest each year.

3.5 Continue to develop and deliver the annual Wyre Forest Affordable Warmth Action Plan, which contributes to the countywide Affordable Warmth Strategy.
3.6 Promote the results of the Warmer Worcestershire thermal imaging survey and use them to carry out targeted energy efficiency improvement measures in the district.
3.7 Work with those involved in building conservation in order to understand how energy efficiency can be improved for listed buildings or homes in conservation areas.
3.8 Provide information to householders in older properties to inform them of the steps that they can take to improve energy efficiency.

Key theme 4: Improving Energy Efficiency in the Business, Public and Voluntary Sectors

Why is this important?

This sector accounts for approximately 36% of CO_2 emissions in Wyre Forest. The main sources of emissions are from the use of gas and electricity to provide heating and lighting and to power equipment. This sector, as for the domestic sector, has seen energy bills increase significantly in recent years. Good energy management makes good economic, as well as environmental, sense. For private businesses, reducing energy bills by 20% can add the same amount to profits as a 5% increase in sales (*source: Carbon Trust).* For the public and voluntary sectors, improving energy efficiency should mean more money available to spend on service provision.

Where are we now?

There are various sources of assistance to help organisations improve their energy efficiency and their bottom line, examples of which include the following:

The Carbon Trust works with organisations to help them reduce their carbon emissions. For example it has worked with Morrisons, whose new energy efficient Kidderminster store will help meet the Trust's emissions reductions standard. Other schemes include the Green Tourism Business Scheme, in which Kidderminster's Ramada Hotel has recently received a coveted silver award. Various Wyre Forest businesses of different sizes are part of the Worcestershire Environment Business Group, which helps them identify ways to reduce waste and improve resource efficiency, collectively saving them £1,000s as well as improving their environmental performance. Whilst some local businesses have taken up these opportunities, there is a need to increase the uptake of this assistance in the area.

Case study: Leading by example at Kidderminster Town Hall

As part of its commitment to tackling climate change, WFDC has improved the energy efficiency of Kidderminster Town Hall. This followed on from an energy management and opportunities assessment carried out for the council by the Carbon Trust. Various measures have been carried out, including the installation of energy saving light fittings and lamps, lighting sensors and radiator valves. Modern heating controls and ventilation has been installed in the adjoining customer service centre, the Hub. The council also encourages energy efficiency in other ways, for example by taking energy use into account when purchasing ICT equipment and by encouraging staff to switch off equipment when not in use.

What are we aiming to achieve in Wyre Forest?

Contribute to the local delivery of NI186 (per capita CO2 emissions). In Wyre Forest district, this equates to a reduction, as a result of local measures, of at least 4,142 tonnes of CO2 from the business, public and voluntary sectors by 2011. The longer term aim is to achieve the transition to a low carbon economy, as described in the West Midlands Economic Strategy.

What do we need to do?

4.1 Lead by example- partners to take action in their own organisations to improve energy efficiency and reduce carbon emissions.

4.2 Raise awareness of the need to reduce energy use amongst businesses and the public sector, particularly in light of rising fuel prices and difficult economic conditions.

4.3 Encourage Wyre Forest businesses to join networks such as the Worcestershire Environmental Business Group to help them share best practice.

4.4 Explore the potential for regulatory agencies (e.g. Environmental Health) to raise the issue with businesses and signpost to relevant advice as part of their activity.

4.5 Work with organisation such as Business Link to increase the provision of energy efficiency advice, especially to Small and Medium sized Enterprises.

4.6 Participate in county-wide activity to extend the Rethink Energy (business grant) scheme throughout Worcestershire and to develop the environmental technologies cluster.

Key theme 5: Sustainable New Development

Why is this important?
Buildings contribute almost half of the UK's carbon emissions. By looking at where and how new developments are built, and the way that existing buildings are refurbished, it is possible to reduce these emissions. The West Midlands Regional Spatial Strategy sets out government requirements for new development up until 2026. Current indications suggest that at least 3,400 new dwellings, as well as industrial and commercial buildings, will have to be built in the district. Factors such as the location, orientation and design of any new buildings will have a huge impact on the resulting carbon emissions.

Where are we now?	**Case study: Rock Village Hall**
The majority of new development in Wyre Forest meets, but does not exceed, the energy efficiency standards required by the UK Building Regulations. The Code for Sustainable Homes sets six target levels for emissions from new homes and will provide a stepped progression in standards, leading to the overall target for all news homes to be zero-carbon by 2016. Housing Associations are already required to meet Level 3 of the Code, a 25% improvement on the energy standards in the 2006 Building Regulations. Standards similar to those in the Code are provided for non-domestic buildings through the Building Research Establishment Environmental Assessment Method (BREEAM). Through the Local Development Framework process, the council's key Planning documents undergo a Sustainability Appraisal, which aims to ensure that they conform to the government's guiding principles of sustainable development.	When the Rock community replaced their village hall, they decided to incorporate a wide range of environmentally friendly features. Recycled materials were used to a large degree, including the use of recycled hemp for insulation, recycled aggregates in the building  and car park. Rain water is collected and used in the lavatories. A Ground Source Energy system is used for space heating and hot water supply. All timber used came from Forestry Stewardship Council sources.

What are we aiming to achieve in Wyre Forest?
Construction of new development that reduces environmental impacts, for example by encouraging implementation of the Code for Sustainable Homes ahead of the government's timetable and encouraging use of tools such as the West Midlands Sustainability Checklist, which provides a robust process for ensuring developments meet sustainability criteria.

What do we need to do?

5.1 Lead by example- ensure that sustainable construction techniques are used in Partners new build and refurbishment projects.
5.2 Encourage more sustainable, energy efficient construction, utilising the planning system to promote sustainable development where possible, e.g. through the Local Development Framework and Core Strategy.
5.3 Disseminate information about examples of best practice in Wyre Forest.
5.4 Work with the construction sector, through education and training, to promote sustainable development.
5.5 Training and awareness raising for professionals in relevant organisations about effectively reducing emissions from new development.
5.6 Participate in relevant county-wide activity, such as the Wyre Forest schools review/ Building Schools for the Future programme.

Key Theme 6: Reducing Energy Use and Emissions from Transport

Why is this important?
Road transport accounts for approximately 25% of CO_2 emissions in Wyre Forest. Traffic congestion is rapidly increasing within the district. It is prevalent in the three main towns, resulting in accessibility problems and declining air quality. Two of the county's four Air Quality Management Areas are within the district, at Horsefair, Kidderminster and Welch Gate, Bewdley. There is an over reliance on the private car in Wyre Forest and as long as this remains the case the situation is likely to continue to deteriorate. The district has seen a rapid decline in rural and urban local bus services in recent years. Future development of the district must include the provision of more sustainable transport choice, including walking, cycling and passenger transport infrastructure, if these issues are to be addressed.

Where are we now?
Proposals to reduce transport emissions and promote more sustainable travel are included in several key district and county strategies.

The Worcestershire Local Transport Plan* includes Wyre Forest specific policies, including traffic management in the 3 towns, improved public transport accessibility and connectivity, a review of school transport provision and support for the Wyre Forest Bus Quality Partnership.

The Wyre Forest district's key planning guidance, the Local Development Framework (LDF)*, sets out proposals for policies to manage travel and transport demand and promote sustainable modes.

Case study: All Aboard the Walking Bus


Franche Walking Bus (source: Kidderminster Shuttle).

Pupils at Franche Community School have a safer and healthier travel option, with the set-up of two walking buses. Youngsters can meet up with their friends at one of two meeting points. They then walk to school, donned in fluorescent jackets, under the supervision of volunteer bus co-ordinators. As well as enabling the children to get some exercise before school, the scheme helps to reduce congestion and pollution. Similar schemes are already in place at other schools in the area, including St Wulstan's RC school in Stourport and Chaddesley Corrbett First School.

What are we aiming to achieve in Wyre Forest?
Contribute to the local delivery of NI186 (per capita CO2 emissions). In Wyre forest, this equates to a reduction, as a result of local measures, of at least 2850 tonnes of CO2 from transport by 2011.

What do we need to do?

6.1 Partners to lead by example e.g. develop green travel plans, procure energy efficient vehicles, and promote 'eco-driving' amongst staff.
6.2 Actively participate in the delivery of countywide transport activity e.g. development of school and employer travel plans, delivery of actions in local transport plans, policies and strategies, Worcestershire Car Share Database.
6.3 Work with partners to improve the quality and accessibility of the bus network in the district, e.g. through implementation of bus priority measures.
6.4 Work with partners to implement improvements to the local rail network facilities and services, including the delivery of improved facilities at Kidderminster station.
6.5 Work with partners to identify and provide Park and Ride facilities in the district.
6.6 Develop and deliver planning policies that reduce the need to travel incorporate the development of a sustainable transport infrastructure.
6.7 Promote the purchase of locally produced goods and services.
6.8 Raise awareness about more sustainable transport choices e.g. by providing information about public and community transport options and promoting local walking and cycling maps.
6.9 Continue to enable local people to have a voice about transport issues through fora such as the Wyre Forest Cycle Forum.

*Worcestershire's Local Transport Plan 2006-2011
* Wyre Forest District LDF Core Strategy Preferred Options Paper January 2009

Key Theme 7: Land Use

Why is this important?

Land use and management can impact upon the levels of carbon emissions released and stored in the environment. Different types of habitats and agricultural crops emit and retain different levels of carbon. In the UK it has been estimated that arable land stores on average 553 tonnes of carbon per hectare, pasture 740 tonnes, semi-natural woodland 1588 tonnes and heath/scrub 2391 tonnes (source: Forestry Commission). Carbon emissions are also influenced by land management practises, such as the cutting or burning of vegetation.

The landscape of the Wyre Forest District includes the nationally important Wyre Forest in the west and predominantly lowland agricultural land to the east. Other notable landscape features include Chaddesley Woods and the extensive lowland heathlands between Bewdley and Kidderminster and at Hartlebury Common.

The way that land within the district is used in the future will impact upon carbon emissions. It is therefore important to take into account emission levels from changing land use (e.g. development) and management practices (e.g. drainage). In the urban landscape, green infrastructure (trees and green spaces in urban settings) can also play a role in climate change mitigation and adaptation, for example by increasing the floodwater storage capacity of the land.

Where are we now?	**Case study: Accounting for Carbon**
This is a new area of work in Worcestershire and further research is needed on this topic. There is much to do to raise awareness about how land use and land management practices contribute to carbon emissions. The Wyre Forest Local Development Framework sets out proposals for future development of the district, including landscape issues and the need for provision of Green Infrastructure.	The Carbon Accounting for Land Managers (CALM) online tool enables land managers to calculate the balance of emissions arising from their practices (e.g. livestock, fertiliser use, and cultivation) and the carbon stored in their land. CLA CALM Calculator The user can use this information to identify ways to reduce emissions and increase carbon storage in the future. The CALM calculator is online at www.calm.cla.org.uk

What are we aiming to achieve in Wyre Forest?

Gain a better understanding of how land use contributes to total carbon emissions in the district.
Seek to influence land use decisions in a way that helps reduce emissions and store carbon.
Raise awareness about the role of land use in carbon management within the Wyre Forest district.

What do we need to do?

7.1 Actively participate in countywide work to:

- Increase and share knowledge and understanding of this issue.
- Find innovative solutions that enable the incorporation of land use into carbon management.
- Identify key pieces of work that quantify emissions from different land use types in Worcestershire, and seek to undertake an analysis that shows areas of risk and opportunity.
- Publish a 'Planning for Soils' research paper to provide guidance for planners on protecting and conserving soils.

Key Theme 8: Minimising Waste

Why is this important?
Waste adds to emissions by releasing greenhouse gases such as methane (65%) and carbon dioxide (35%) as it breaks down in landfill sites. Energy is also used to transport, manage and dispose of waste, creating further emissions. In general, less energy is needed to make items from recycled materials than from raw materials (depending on the collection and treatment processes involved). Disposing of materials, instead of recycling them, increases the need for raw materials. As landfill costs continue to increase and the availability of landfill space decreases, there is a growing need to further reduce the amount of waste sent to landfill.

Where are we now?	**Case study: Freecycling in Wyre Forest**
In recent years there has been much activity to reduce the amount of waste sent to landfill in Worcestershire. In Wyre Forest, the percentage of household waste being recycled increased from 8% in 2003 to 28% in 2008. The amount of commercial and industrial waste produced in Worcestershire sent to landfill fell from 67% in 2004 to 55% in 2008. These improvements have come about as a result of various activities, including the introduction of a kerbside recycling scheme for householders, selling of cut-price compost bins, support for reuse organisations such as the Oldington and Foley Park furniture reuse network and awareness raising campaigns such as Love Food, Hate Waste.	The Wyre Forest Freecycle group was set up in 2005 and now has more than 5000 active members. Freecycle is an online resource enabling people to pass on their unwanted household goods for free. The Wyre Forest group is one of hundreds of Freecycle networks internationally, set up to reduce waste, save resources and ease the burden on our landfills whilst benefiting the community. See: www.freecycle.org.uk

What are we aiming to achieve in Wyre Forest?

Contribute to county, regional and national targets to reduce waste. These include:
- A county target to reduce the amount of municipal waste landfilled, from 57% in 2006/7 to 48% by 2011, as part of the Worcestershire LAA.
- Targets for diverting waste from landfill by 2026, as part of the Regional Spatial Strategy.
- A target to reduce the amount of industrial and commercial waste going to landfill to 80% of 2004 levels by 2015, as part of The National Waste Strategy 2007.

What do we need to do?

8.1 Partners to lead by example and minimise their own waste by reducing, reusing and recycling.
8.2 Raise awareness about the links between climate change and waste.
8.3 Raise awareness about waste reduction, reuse and recycling with businesses, schools, public sector organisations, community groups and householders.
8.4 Deliver on Wyre Forest District Council priorities to reduce waste to landfill and increase domestic, business and on-street recycling in the district.
8.5 Participate in county-wide activity to reduce waste, which includes:
- Development of new waste management facilities,
- Exploration of the potential to tap methane as fuel at landfill sites
- Small scale business diversification and development projects
- Inclusion of climate change issues in the revised Joint Municipal Waste Management Strategy for Herefordshire and Worcestershire and the new Waste Core Strategy.
- Development of potential use of waste products to create a localised energy supply e.g. wood waste, biodigestion/biogas.

Key Theme 9: Increase the use of renewable energy

Why is this important?

Improving energy efficiency is key to reducing greenhouse gas emissions in Wyre Forest. In addition, generating heat and electricity from renewable sources of energy can also help to reduce emissions. Renewable energy occurs naturally and continuously in the environment and will never run out, unlike fossil fuels such as coal, oil and gas, the main sources of greenhouse gas emissions. Sources of renewable energy include wind, solar power, biomass (e.g. wood fuel), hydro and geothermal heating.

In order to meet the higher levels of the Code for Sustainable Homes, developers will need to include some form of renewable energy generation. The necessary skills and infrastructure will also need to be developed in order to meet the growing demand for renewable energy generation. Helping to develop environmental technologies in the area provides an opportunity for positive benefits for the local economy.

Where are we now?

Worcestershire County Council recently commissioned an independent study to identify the county's renewable energy capacity. The development of larger scale projects will depend upon economic viability, environmental acceptability and planning issues. A Planning for Renewable Energy paper has also been produced to help increase understanding of the planning issues surrounding renewables.

A number of grant schemes are in place to help householders and businesses install small scale renewable energy systems. For example, the Re-think energy scheme provides grants for SMEs in the rural Regeneration Zone, which includes parts of Bewdley. Wyre Forest District council offers grants to householders and community groups wishing to install micro generation technologies.

Case study:

The Wyre Forest Wood Fuel Pathfinder is one of eight Forestry Commission funded projects running nationally to find out how best to develop sustainable local wood fuel supply chains. It has been estimated that the Wyre Forest and surrounding woodlands has 14,000 tonnes of wood suitable for conversion to wood fuel*.

The project includes training events, site visits, promotion of the use of wood fuels and the encouragement of wood fuel boiler installations in the area. Bewdley High School has already installed a 100kw wood fuel boiler and there are plans to install one at Sutton Park Primary School in Kidderminster.

What are we aiming to achieve in Wyre Forest?

The independent study into the county's renewable energy resource indicates that Worcestershire/ Wyre Forest could realistically aim to source 7MW from renewable energy technologies by 2026, which could supply the equivalent of at least 15,000 homes. The greatest carbon savings would be achieved through a mixture of technologies at different scales.

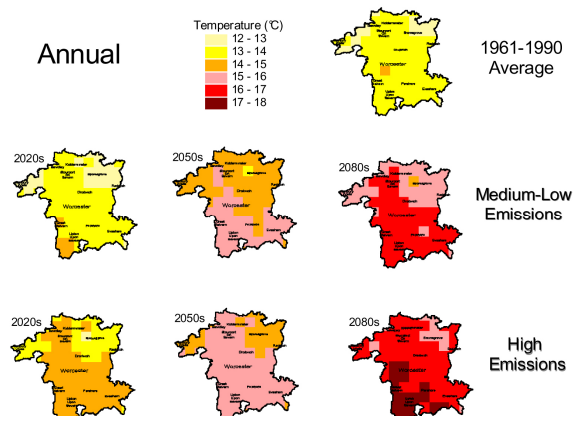
What do we need to do?

9.1 Partners to lead by example by considering incorporation of renewable energy generation in their own developments/ on their land.
9.2 Identify potential for renewable energy in the district and develop a plan to increase uptake in appropriate environments.
9.3 Raise awareness about the different types of renewable energy to different sectors, such as businesses and householders, particularly those off the grid.
9.4 Raise awareness and encourage uptake of the various grants available to help install renewable energy technologies.
9.5 Disseminate information about local good practice such as the Wyre Forest Wood Fuel Pathfinder project and micro-generation installations.
9.6 Ensure specific policies and guidance on the exploitation of renewable energy resources are included in local development plans.
9.7 Support small scale projects, which help develop the local economy and raise awareness
9.8 Training and awareness for relevant professionals to increase understanding about renewable energy systems.

Plan and adapt to the impacts of climate change

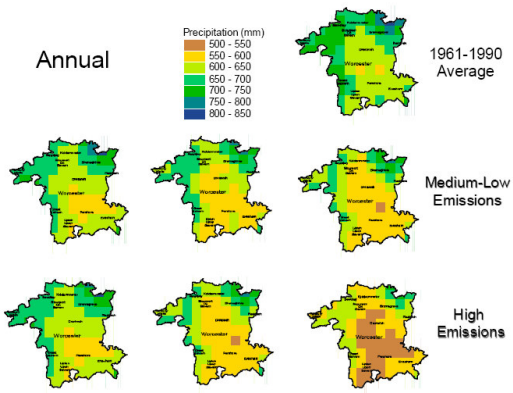
A detailed Worcestershire Climate Change Impact Study has been carried out. This looked at changes in Worcestershire's climate over the last century, including a 0.6C temperature rise and a 30 day increase in the growing season since the 1900s, with winters becoming much wetter relative to summers.

The study also looked at predicted future changes over the next century. Predictions depend on future emissions (the higher the emissions, the more extreme the changes are likely to be) but include: average summer max temp to increase 3.6- 6.1C by the 2080s; winter rainfall to increase 13-23% by the 2080s, summer rainfall to decrease by up to 12% by 2020s & up to 50% by 2080s, more short duration extreme weather events such as storms and floods.



Maps to show predicted Temperature Changes in Worcestershire

Source: Worcestershire Climate Change Impacts Study



Maps to show predicted Precipitation Changes in Worcestershire

Source: Worcestershire Climate Change Impacts Study

The study also identified the potential impacts of climate change on various sectors, such as:

- Built environment- e.g. overheating of buildings and increased frequency of flooding, with implications for planning policy and design.
- Public services- e.g. increased food poisoning cases/pests, rising air pollution, pressure on drainage systems.
- Industry & Commerce e.g. increased demand for local tourism/ outdoor leisure services, insurance issues.
- Natural environment/ public open spaces e.g. plant adaptability (drought tolerance), grass cutting regimes.

The Worcestershire Local Area Agreement includes a target to plan for the impacts of climate change. The following pages of this strategy set out plans to adapt to the impacts of climate change in above sectors in Wyre Forest.

Key theme 10: Public Service Adaptation to the Impacts of Climate Change

Why is this important?
Public Services in Wyre Forest need to ensure they can continue delivering their services as the climate changes. They will need to ensure plans are in place to deal with extreme weather events, which are expected to happen more frequently, as well as more gradual changes in our climate. The public will look to Public Services to work together to provide leadership and help to deal with events such as flooding. Individual services will need to consider the impact of different aspects of climate change, for example the impact upon our health services during a heat wave.

Where are we now?	**Case study: The 2007 Floods**
As a flood prone district, Wyre Forest Public Service organisations participate in various groups that have been set up to try and deal with this issue, such as the county Drainage Group and Severe Weather Group. Plans are also in place to deal with some aspects of climate change, for example the PCT have a plan for dealing with extreme heat. Following the 2007 floods, a major national review identified many measures that public services should put in place to lessen the impact of future flooding. There is still much for Wyre Forest's Public Services to do in order to identify, assess and deal with the risks associated with changes in our climate.	The summer 2007 floods impacted upon Wyre Forest, with at least 260 households, highways and industrial properties flooded. Public services in the district responded in various ways, including: - Participation in implementation of the county emergency plan. - Emergency evacuations following a landslip in Bewdley and a highway collapse in Kidderminster. - Assistance in clean-up operations e.g. through provision of grants to households to assist recovery and advice from Environmental Health.

What are we aiming to achieve in Wyre Forest?
Through Local Area Agreement National Indicator 188 (Planning to Adapt to Climate Change), Wyre Forest District Council is required to have put certain measures in place by 2011. This includes carrying out a comprehensive assessment of the potential impacts across all parts of the authority and amongst Wyre Forest Matters partners. There is also a local target to develop and implement flood risk management plans in vulnerable areas and put improved flood warning systems in place at a parish level.

What do we need to do?

10.1 Wyre Forest public services to identify and assess the risk from climate change in their locality and upon their services.
10.2 Raise awareness about the potential impacts of climate change amongst Wyre Forest public services.
10.3 Encourage public service organisations to consider climate change as part of their risk management and business continuity plans.
10.4 Ensure relevant plans and strategies include provision for the impacts of climate change, including for example those covering Land Use, Housing, Waste and Open Space Management.
10.5 Develop and implement a Multi Agency Flood Plan for the district.
10.6 Implement the recommendations of the 2008 Pitt Review on flooding and the forthcoming Water and Floods Bill.
10.7 Actively participate in relevant county and district groups set up to address the impacts of weather events.
10.8 Produce a Local Climate Impacts Profile for the district, to identify the impacts of weather events on our public services.

Key theme 11: Industry and Commerce Adaptation to the Impacts of Climate Change

Why is this important?
All businesses in all sectors are likely to be affected by climate change. Businesses currently affected by weather events will be particularly vulnerable. Those with global markets or suppliers may be affected by the impacts of climate change in other countries. Weather and climate affects a range of business areas, including logistics, finance, markets, customers, processes, work force and business premises. Businesses will need to identify and assess the impacts they are likely to experience as our climate changes. It should also be remembered that changes in climate may present businesses with commercial opportunities, as well as threats.

Where are we now?
The UK Climate Impacts Programme (UKCIP) provides information and advice for businesses about addressing the impacts of climate change. A small number of Wyre Forest businesses have participated in workshops run by the Worcestershire Environmental Businesses Group, based upon UKCIP materials.

Some businesses are already looking at the potential impacts, such as changes in water supply or upon processes reliant on temperature. However there is a need to help more Wyre Forest businesses to assess and plan for the impacts of climate change.

Case study: Severn Valley Railway
The Severn Valley Railway is one of the district's top tourist attractions, receiving up to 300,000 visitors per year. The railway suffered severe damage as a result of the flooding in summer 2007. Damage at 45 separate locations along the 16 mile line cost £3 million to repair. The repair works involved putting systems in place to reduce the extent of damage in the future.

Photo courtesy BBC website

The railway did not fully re-open until Easter 2008 – thought to have cost £1.8million in lost revenue.

What are we aiming to achieve in Wyre Forest?
Wyre Forest based businesses to identify, assess and plan for the potential impacts of climate change.

What do we need to do?

11.1 Encourage Wyre Forest businesses to identify, assess and plan for the impacts of climate change.
11.2 Raise awareness amongst Wyre Forest businesses about the potential impacts of climate change.
11.3 Signpost Wyre Forest businesses to relevant sources of advice on dealing with climate change.
11.4 Encourage Wyre Forest businesses to exploit the opportunities presented by climate change.
11.5 Work with strategic planners to ensure that where possible employment land is located away from the floodplains.
11.6 Participate in county wide activity to develop the skills of the workforce to help them deal with the impacts of climate change and identify and work with those businesses most at risk.

Key theme 12: Built Environment Adaptation to the Impacts of Climate Change

Why is this important?

The West Midlands Regional Spatial Strategy sets out government requirements for new development up until 2026. Current indications suggest that at least 3,400 new dwellings, as well as industrial and commercial buildings, will have to be built in the district. Climate change impacts will need to be considered as part of the siting and design of new development. Furthermore, it is thought that at least 80% of existing housing stock will still be standing in 2050 (*source: Sustainable Development Commission)*. These properties were built to deal with the climate at the time of construction. Actions will need to be carried out to help existing buildings – and the people that use them- adapt to the impacts of climate change.

Where are we now?	**Case study: Queensway Estate**
The new draft Wyre Forest Core Strategy Preferred Options paper includes policies which would require new developments to take account of climate change risks and incorporate adaptation measures such as Sustainable Urban Drainage Schemes (SUDS), natural ventilation and shading; with a general presumption against development that is not climate change ready. Examples of climate resilient construction exist elsewhere in county and there is opportunity to learn from partner organisations and develop current good practise. Addressing climate change issues in existing development will present a big challenge in the district. Work will also need to be carried out to raise awareness amongst residents about actions they can take in their own lives to adapt.	The Queensway estate in Wribbenhall has flooded several times in recent years. The estate was built upon a culverted water course and lies in a valley. Drainage becomes concentrated in a short space along The Queensway road. A Local Residents Flood Committee has been set up and various organisations are working to try and address the issues. Work has been scheduled to increase the size of the stream culvert and the Environment Agency is modelling a storm water storage area. Community Housing Group have renewed and replaced the soakaways on their properties. The district council are working closely with consultants and developers looking to develop the Wribbenhall school site above the Queensway, to ensure the drainage system for new housing is sustainable and will not adversely impact upon the homes and drainage below.

What are we aiming to achieve in Wyre Forest?
New development in the Wyre Forest district to be designed and built to cope with the impacts of climate change. Maximise the uptake of any opportunities to adapt existing development, e.g. as part of refurbishments.

What do we need to do?

12.1 Raise awareness about the need for climate resilient construction and learn from best practice examples elsewhere in the county.
12.2 Raise awareness amongst Wyre Forest householders about how they can protect their properties from the impacts of flooding.
12.3 Participate in county wide activity to promote inclusion of climate change issues into training for built environment professionals and learn from heritage organisations about their adaptation work.
12.4 Implement policies requiring new development to take climate change issues into account and incorporate adaptation measures.

Key theme 13: Natural Environment Adaptation to the Impacts of Climate Change

Why is this important?
Wyre Forest's natural environment is one of its key assets and is consistently quoted by residents as something that makes the district a great place to live. The quality of our natural environment is vulnerable to climate change impacts such as increased flooding, increased drought and increased demand on water supply. Our biodiversity, agriculture, open spaces and water resources could all be affected.

Where are we now?
Fire is a huge risk to biodiversity. There is a close correlation between the amount of summer rainfall and the number of outdoor fires occurring, with fire spreading more rapidly in hotter, drier conditions. Hartlebury Common and the Wyre Forest have been identified as most sensitive to fire risk.

Agriculture will also be affected by climate change, which could be detrimental to some crops but provide opportunities to grow new ones. The growing season in Worcestershire has already increased by 30 days since the 1900s.

The Worcestershire Biodiversity Action Plan sets out plans to protect key habitats and species in the county. A land use inventory and landscape assessment maps have been developed. These will enable us to chart the impacts of climate change on our land use and landscape. Wyre Forest District Council has signed up to the West Midlands Biodiversity Pledge, which includes a commitment to consider the impacts of climate change and make plans to help biodiversity adapt.

Case study: Wildlife feels the heat too.

Climate change is likely to impact upon all or most of Wyre Forest's ecosystems. Some species already seem to be responding to change, for example sycamore & hawthorn are coming into leaf earlier.

Changes like these are likely to alter the competitive advantage of some species, resulting in changes in the composition of habitats. The distribution patterns of many species are determined to a large extent by climatic parameters. Changing patterns of climate will change their natural distribution limits. Warmer average temperatures may let species extend their range northwards in the UK– providing wildlife corridors & habitats exist.

What are we aiming to achieve in Wyre Forest?

Develop knowledge and understanding of the potential impacts of climate change on the Wyre Forest's natural environment. Identify realistic measures that can be taken to assist adaptation and encourage policy makers in the natural environment sector to take the impacts of climate change into account.

What do we need to do?

13.1 Carry out further research into the likely impacts of climate change upon the district's natural environment.
13.2 Raise awareness about the impacts and about possible adaptation responses.
13.3 Ensure relevant plans and strategies include provision for the impacts of climate change.
13.4 Participate in county wide activity to continually progress Worcestershire's Biodiversity Action Plan.

Appendix 1: Worcestershire LAA Climate Change National Indicators

NI186: Per capita CO2 emissions in the Local Authority area.	
Indicator details	A measure of carbon dioxide emissions arising from housing, businesses/ public organisations and transport use in the Wyre Forest district.
Monitoring	CO2 data for the Wyre Forest district is provided annually by DEFRA. WFDC to monitor actions in the district to reduce emissions.
Local Area Agreement Targets.	Year 1: 3% reduction from 2005 levels. Year 2: 6% reduction from 2005 levels. Year 3: 9% reduction from 2005 levels. Reductions are to come from a mixture of national measures (e.g. due to new central government legislation) and local measures. WFDC will be accountable for reductions from local, and not national, measures.
The current situation in Wyre Forest.	In 2005 (the LAA baseline year), emissions in Wyre Forest were 6.19 tonnes per head, split as follows: Domestic sector 39%; industry and commerce 36%; transport 25%. Work is already underway to try and reduce emissions, for example the Wyre 60 free insulation scheme. However, DEFRA recently released CO2 data for 2006, showing a 1.2% ***increase*** from 2005 in Wyre Forest, making the LAA targets even more challenging.

NI187: Tackling fuel poverty	
Indicator details	Measures the % of people receiving income based benefits living in homes with a low and high energy efficiency (SAP) rating in the district.
Monitoring	Annual survey to be carried out by the Worcestershire Energy Efficiency Advice Centre on behalf of the Council.
LAA Targets.	Worcestershire baseline established in 2008/9: 10.68% of housing has a SAP rating below 35 (lower energy efficiency) and 36.73% of housing has a SAP rating above 65 (higher energy efficiency). **Target for housing with a SAP rating below 35:** Year 2 - to reduce the % by 1.5% & achieve a target of 9.18% Year 3 - reduce the % by another 1.5% and reach a target of 7.68% **Target for housing with a SAP rating above 65:** Year 2 - to increase the % by 1.5% and achieve a target of 38.23% Year 3 - increase the % by another 1.5% and achieve a target of 39.73%
The current situation in Wyre Forest.	Based on a survey carried out late 2008, in Wyre Forest: 10.27% had a SAP rating below 35 34.15% had a SAP rating above 65

NI188: Planning to Adapt to Climate Change	
Indicator details	This is a process indicator which gauges the level of progress by a Local Authority in assessing and addressing the risks and opportunities of a changing climate. Progress is measured on a scale of 0 to 4: Level 0 - Process of assessing potential threats & opportunities across LA estates & services underway. Level 1: Public Commitment & prioritised risk-based assessment. Level 2: Comprehensive risk-based assessment & some prioritised actions. Level 3: Comprehensive action plan and prioritised action in all areas. Level 4: Implementation, monitoring and continuous review. Examples of the types of evidence required for each level are also available.
Monitoring	Self assessment by the authority. The Audit Commission will assess the robustness of the assessment through the Comprehensive Area Assessment process.
Local Area Agreement Targets.	Baseline – all Local Authorities at level 0 Year 1 - all district & County Councils at minimum level 1 Year 2 - all district councils at minimum level 1, with County Council at level 2. Year 3 - all district councils at minimum level 2, with County Council at level 3.
The current situation in Wyre Forest.	Actions underway to meet level 1. This includes carrying out a Local Climate Impacts Profile to establish the impact of weather events on the public services over recent years.

APPENDIX 2: WYRE FOREST CLIMATE CHANGE ACTION PLAN 2009/10

WYRE FOREST CLIMATE CHANGE ACTION PLAN 2009/10

Key Theme 1: Raise Awareness of the Issue of Climate Change with the Public, Community / Partnership Organisations & Businesses.

ACTION	WHO'S INVOLVED	**RESOURCE ISSUES**	**TARGET / INDICATOR**	**NOTES**
1.1 WFDC to publicise what they have done since signing the Worcestershire Climate Change Pledge and encourage other district organisations to sign up.	Health & Sustainability	Staff time	WFDC progress report produced by 31/5/09. Number of Wyre Forest organisations who have signed the pledge.	WFDC signed the pledge in 2006 and are required to complete an annual progress report.
1.2 WFDC to raise staff awareness through the sustainability training course	Health & Sustainability	Staff time	Numbers attending the training in 2009/10	
1.3 WFDC to carry out awareness raising activities amongst staff/ Members	Environmental Working Group	Staff time Possible cost of printing/ incentives.	Number of staff/ Members taking part in activities.	
1.4 WFDC to carry out awareness raising activities at public events e.g. carnivals.	Health & Sustainability Act on Energy	Staff time Possible cost of printing/ incentives.	Number of people taking part in activities.	
1.5 WFDC to produce a Housing newsletter, to include climate change issues	Health & Sustainability Housing	Staff time	3 newsletters produced in 2009/10	
1.6 WFDC to include climate change information on the council website	Health & Sustainability Communications	Staff time	Sustainability pages of website updated by 31 May 2009	
1.7 WFDC to co-ordinate district participation in the 2009 Switch It Off campaign	Health & Sustainability Environmental Working Group	Staff time. Printed materials etc provided by WCC.	Number of people taking part in Wyre Forest/ overall drop in electricity demand during the campaign.	
1.8 WFDC to participate in Transition Town initiatives in the district.	Health & Sustainability	Staff time	Meetings attended/ numbers participating in activities	

1.9 WFDC to help set up Climate Change Community Champions scheme in the district.	Health & Sustainability Partner organisations	Staff time Cost of supporting materials & training	Scheme set up by 31/3/10	

Key Theme 2: Raise awareness about the issue of climate change through Education settings

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
2.1 WFDC (in partnership with WCC) to help district schools with Switch It Off activities	Health & Sustainability	Staff time. Printed materials etc provided by WCC.	Number of participants in Switch It Off school activities/ energy saved by Wyre Forest schools.	Links to action 1.7
2.2 WFDC to incorporate climate change into any relevant work with schools (e.g. orchard project, waste minimisation work).	Health & Sustainability Waste Parks	To be considered on a project-by-project basis.	Number of participants in activities	
2.3. WFDC to actively participate in the countywide Learning for Sustainability Forum.	Health & Sustainability Waste	Staff time	Meetings attended.	
2.4 WFDC to clarify package of support for schools participating in Ecoschools programme	Health & Sustainability	Staff time	By 31/5/09	In liaison with Worcestershire County Council Education for Sustainable Development team.

Key Theme 3: Improving Home Energy Efficiency

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET/ INDICATOR	NOTES
3.1 WFDC to promote sources of home energy advice through local media and at events.	Health & Sustainability Act On Energy Affordable Warmth group	Staff time Possible cost of promotional materials	Number of articles published/ events attended/ people advised.	Promotional materials already available
3.2 WFDC to encourage staff, councillors and members of partner organisations to insulate homes and use low energy light bulbs.	Environmental Working Group Act on Energy Health & Sustainability Partner organisations	Staff time	Number of home insulated and low energy light bulbs installed.	Light bulbs provided for free by utilities companies.
3.3. WFDC to co-ordinate distribution of free low energy light bulbs, particularly to vulnerable households.	Health & Sustainability Act On Energy Affordable Warmth group	Staff time	Number of light bulbs distributed.	Light bulbs provided for free by utilities companies.

3.4 WFDC to run and promote the Wyre 60 scheme, providing free insulation for householders aged 60+.	Health & Sustainability Act On Energy Contractor	£70k allocated from regional Decent Homes budget.	Number of loft and cavity wall insulation measures installed.	
3.5 WFDC to chair the Affordable Warmth Group and co-ordinate development and delivery of the annual Wyre Forest Affordable Warmth Action Plan	Health & Sustainability Affordable Warmth Group	Staff time SLA between WFDC and Act on Energy	Meetings held. Action Plan progress.	
3.6 Promote results of the Warmer Worcestershire thermal imaging flyover.	Wyre Forest Matters Health & Sustainability Affordable Warmth Group Private Sector Housing Act on Energy	Staff time Promotional materials & website to be funded through the Worcestershire Partnership.	Number of people advised. Website hits. Articles published	
3.7 Carry out targeted activity to promote energy efficiency measures in hot spot areas identified by the Warmer Worcestershire project.	Wyre Forest Matters Health & Sustainability Affordable Warmth Group Private Sector Housing Act on Energy	Staff time Promotional materials & website to be funded through the Worcestershire Partnership.	Number of people advised. Number of insulation measures installed.	
3.8 Affordable Warmth Group to investigate issues relating to energy efficiency and older properties/conservation	Affordable Warmth Group Conservation Officer	Staff time. Resources to be considered as part of any schemes developed.	Issues discussed at Affordable Warmth meeting.	

Key theme 4: Improving Energy Efficiency in the Business, Public and Voluntary Sectors

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
4.1 WFDC to identify and implement measures to improve the energy efficiency of their buildings	Facilities Manager, Management Accountant. Environmental Working Group	Many measures require an initial outlay. Payback periods vary from measure to measure.	Reduction in energy use and carbon emissions from council buildings (as required by NI185)	Energy surveys have been carried out at 8 key WFDC sites, identifying potential energy saving measures and payback periods.
4.2 WFDC to raise awareness about energy efficiency in the workplace amongst staff.	Environmental Working Group	Staff time. Possible cost of incentives/ promotional materials.	Reduction in energy use and carbon emissions from council buildings (as required by NI185)	Energy surveys have been carried out at 8 key WFDC sites, identifying potential energy saving measures and payback periods.

4.3 WFDC to produce an e-newsletter on climate change issues for local businesses	Economic Development/ Health & Sustainability/ Business groups.	Staff time.	2 newsletters in 2009/10	To include energy issues
4.4 WFDC to host/ organise a workshop for local businesses.	Economic Development/ Health & Sustainability/ Business groups.	Staff time.	Event held by 31 March 2010.	This could be done as part of a wider business meeting/ event.
4.5 Environmental Health to look into providing advice as part of their regulatory duties.	Environmental Health	Staff time	Feasibility investigated/ scheme developed/ businesses assisted.	
4.6 WFDC to promote energy audits and grants for energy measures available to businesses in the district.	Economic Development/ Health & Sustainability/	Staff time	Energy audits undertaken. Uptake of relevant grants	

Key theme 5: Sustainable New Development

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET/ INDICATOR	NOTES
5.1 WFDC to ensure future new build projects (e.g. Single Site) are built to the highest possible standards in terms of energy efficiency and sustainability.	Cabinet. Corporate Management Team Environmental Working Group	Integrate into existing projects with allocated resources. Some measures may require a higher up front cots but lead to lower running costs.	New builds meet relevant standards e.g BREEAM Excellent standard.	
5.2 WFDC to incorporate policies to promote sustainable, energy efficient development through the planning system	Forward Planning Environmental Working Group	Staff time	Inclusion in relevant documents e.g. Core Strategy	
5.3 WFDC to investigate opportunities to work with the construction sector, e.g. through local training providers.	Health & Sustainability Economic Development	Staff time Possible training costs to be considered.	Ongoing	
5.4 WFDC to collate and disseminate info about local best practice projects.	Health & Sustainability	Staff time	Number of case study articles produced.	

5.5 WFDC to organise seminar on climate change & new development, to include effectively reducing emissions	Health & Sustainability Planning RSLs	Staff time Seminar costs	Seminar held by 31/3/10	To include renewable energy issues (Key theme 9) and adaptation issues (Key Theme 12)
5.6 WFDC to participate in relevant county wide activity e.g. Building Schools for the Future	Health & Sustainability	Staff time	Meetings attended	

Key theme 6: Reducing Energy Use and Emissions from Transport

ACTION	**WHO'S INVOLVED**	**RESOURCE IMPLICATIONS**	**TARGET / INDICATOR**	**NOTES**
6.1 WFDC to monitor and report on emissions from staff travel and fleet fuel use, as required for National Indicator 185.	Management Accountant, Human Resources, Health & Sustainability	Staff time	Quarterly monitoring figures produced. Reduction in emissions.	
6.2 WFDC to revisit its employee travel plan and implement measures as appropriate.	Environmental Working Group	To be considered in evaluating proposed measures.	Revised travel plan produced by 31/12/09 Implementation of measures. Reduction in emissions (NI185)	
6.3 WFDC to address transport emissions as part of Single Site (e.g. through location and sustainable transport provision).	Cabinet Corporate Management Team Environmental Working Group	Resources allocated to Single Site project.	Implementation of measures. Reduction in emissions (NI185)	
6.4 WFDC to take transport issues into account as part of procurement (e.g. fuel efficiency of new vehicles; transport emissions of goods & services).	Procurement Working Group Procurement Officer	To be considered as part of procurement process.	Reduction in emissions (NI185). Inclusion in tender evaluation exercises.	
6.5 WFDC to promote eco-driving amongst its staff	Health & Sustainability Worcs County Council	Possible costs of training	Numbers trained	
6.6 WFDC to incorporate policies to reduce transport emissions through the planning process	Forward Planning Environmental Working Group	Staff time	Inclusion in relevant documents e.g. Core Strategy	
6.7 WFDC to work with partners to improve district rail, bus and Park & Ride facilities	Forward Planning Environmental Working Group	Staff time Cost of improvements	Attendance at relevant meetings Improvements achieved	
6.8 WFDC to raise awareness about sustainable transport issues through the media	Health & Sustainability Communications	Staff time	Articles published. Web page set up by 31/5/09	
6.9 WFDC to organise awareness raising activity during	Environmental Working Group	Staff time Cost of publicity/ incentives	Numbers participating in activities	

relevant national campaigns e.g. Bike to Work week				
6.10 WFDC to host and provide secretariat and input to Wyre Forest Cycle Forum	Forward Planning Health & Sustainability	Staff time	Meetings held Outcomes achieved	

Key theme 7 : Land Use

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
7.1 Participate in countywide work to increase knowledge and understanding of this issue.	Health & Sustainability Forward Planning	Staff time Resource issues to be considered as part of any projects	Meetings attended Research/guidance produced	

Key theme 8: Minimising Waste

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
8.1 WFDC to minimise its own waste by reducing, reusing and recycling	Environmental Working Group Facilities Management	Waste collection costs	Reduction in waste/ increase in recycling %	
8.2 WFDC to incorporate climate change issues into awareness raising on waste issues	Health & Sustainability Waste	Staff time	Articles produced Participation in activities	
8.3 WFDC to incorporate waste minimisation into climate change work with schools, businesses, community groups etc.	Health & Sustainability Waste	Staff time Printing costs	Participation in activities	Relates to actions 1.10, 2.2, 2.4, 4.3, 4.4, 5.1

Key theme 9: Increase the use of renewable energy

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
9.1 WFDC to incorporate appropriate renewable energy measures into new build projects e.g. Single Site	Cabinet. Corporate Management Team Environmental Working Group	Integrate into existing projects with allocated resources. Some measures may require a higher up front cost but lead to lower	Amount of renewable energy generation	Links to action 5.1

		running costs.		
9.2 WFDC to incorporate policies to encourage renewable energy generation through the planning process	Forward Planning Environmental Working Group	Staff time	Inclusion in relevant documents e.g. Core Strategy, Site Allocations	
9.3 WFDC to raise awareness about renewable energy grants, including its own scheme for householders and community groups	Health & Sustainability	Staff time Grant funding allocated from regional Decent Homes budget.	Number of grants awarded Articles produced Number of promotional events	
9.4 WFDC to produce/ disseminate case studies about local renewable energy installations	Health & Sustainability	Staff time	Number of case studies produced	

Key theme 10: Public Service Adaptation to the Impacts of Climate Change

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
10.1 WFDC to produce/ disseminate a Wyre Forest Local Climate Impacts Profile	Health & Sustainability Environmental Working Group	Staff time	Report produced & disseminated	
10.2 WFDC to identify priority climate change risks and adaptation measures for its services	Health & Sustainability Environmental Working Group Risk Management Group	Staff time Resources for implementation	Report produced Measures implemented	
10.3 WFDC to incorporate policies to adapt to the impacts of climate change through the planning process	Forward Planning Environmental Working Group	Staff time	Inclusion in relevant documents e.g. Core Strategy, Site Allocations	

Key theme 11: Industry and Commerce Adaptation to the Impacts of Climate Change

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
11.1 WFDC to produce an e-newsletter for local businesses, to include adaptation issues.	Economic Development/ Health & Sustainability/	Staff time.	2 newsletters in 2009/10	Links to action 4.3

	Business groups.			
11.2 WFDC to host/ organise a workshop for local businesses.	Economic Development/ Health & Sustainability/ Business groups.	Staff time.	Event held by 31 March 2010.	This could be done as part of a wider business meeting/ event. Links to action 4.4

Key theme 12: Built Environment Adaptation to the Impacts of Climate Change

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
12.1 WFDC to organise seminar on climate change & new development, to include adaptation issues.	Health & Sustainability Planning RSLs	Staff time Seminar costs	Seminar held by 31/3/10	Links to action 5.5
12.2 WFDC to raise awareness about adaptation through the media.	Health & Sustainability Housing Communications	Staff time	Number of articles produced	

Key theme 13: Natural Environment Adaptation to the Impacts of Climate Change

ACTION	WHO'S INVOLVED	RESOURCE ISSUES	TARGET / INDICATOR	NOTES
13.1 WFDC to raise awareness about the impacts of climate change on Wyre Forest's natural environment	Health & Sustainability Countryside/Parks	Staff time	Reports/ articles produced	
13.2 WFDC to incorporate climate change issues into plans relating to the natural environment	Health & Sustainability Countryside/Parks Forwards Planning	Staff time	Inclusion in relevant documents	