



Introduction

This document replaces our original Environmental Policy & Strategy, which was launched in April 2008. Since that time, we have made good progress in laying the foundations for a sustained reduction in our carbon emissions and have started to see some reductions in key areas.

In the context of the global financial crisis, the issue of climate change has become seen as a lesser priority by many. In facing our own financial challenges we have declared, as part of our Communities First Programme, a commitment to maintaining front line policing services. To do this, we must ensure we maximise value for money in all other areas. Staffordshire Police currently spend over £2.5m on utilities to run our buildings and fuel to run our vehicles, so there are major financial benefits as well as environmental ones in reducing consumption.

The fact remains that there is widespread scientific consensus that man-made greenhouse gas emissions are leading to rapid and irreversible climate change, with CO₂ being the main contributor. As a responsible public service, we have a moral and legal duty to minimise our impact on the environment. Furthermore, as an emergency service we need to be aware of, and prepare for, the impact that climate change could potentially have on our communities and our own operational effectiveness.

This document captures current issues relating to the environment, climate change and carbon management, action we have taken to tackle our own emissions and how we are preparing for the impact of climate change on our organisation and operational policing in Staffordshire. It also sets out targets and actions for the next three years. It will primarily be available on line and broken down into sections, enabling our staff, partners and the public to read only those parts which are of interest and relevance to them.

[Section 1](#) provides a brief explanation about climate change, its causes and effects.

[Section 2](#) sets out how climate change might impact on Staffordshire and its communities and how we are preparing for it.

[Section 3](#) sets out the framework of international and national policy which has developed in response to climate change and how this has impacted on local policy.

[Section 4](#) outlines our achievements in reducing emissions from our buildings and our strategy for achieving further reductions.

[Section 5](#) outlines our achievements in reducing emissions from our transport and our strategy for achieving further reductions.

[Section 6](#) outlines our achievements in sustainable procurement, waste and recycling and our strategy for improvement.

[Section 7](#) summarises our performance against the reduction targets set in the previous plan and sets targets for further reductions over the next three years.

[Section 8](#) describes the governance, ownership and management arrangements which will be used to drive the strategy forward.

Section 1: An introduction to climate change

What is climate change?

'Climate' may be defined as the average weather experienced over a long period. This includes temperature, wind and rainfall patterns. The science of climate change is constantly evolving; in particular the ability of scientists to produce increasingly more detailed and accurate predictive models of how the earth's climate will change. There is an ever growing consensus that climate change is occurring and that these changes can only be explained by human activity. Climate change is caused by interference with the 'greenhouse effect'. The greenhouse effect is the natural process by which certain gases trap heat inside the Earth's atmosphere. An increase in the amount of these gases is leading to an increase in global temperature and to global climate change.

The temperature of the Earth is controlled by a delicate balance between the amount of energy coming in from the Sun and the amount being radiated back into space. Energy from the Sun is at a shorter wavelength than the energy being radiated back from the Earth, because the Earth is not as hot as the Sun. Certain gases, such as carbon dioxide and water vapour will let in short wave energy, but will trap some of the long wave energy radiated and reflected from the earth inside the atmosphere.



What causes climate change?

There are several greenhouse gases that are responsible for human-induced climate change; however carbon dioxide has been the primary focus of concern.

Approximately 63 per cent of the warming effect of greenhouse gas increases over the last 100 years has been attributed to carbon dioxide, whilst 24 per cent has been attributed to methane. The remainder is down to a mix of various other gases, the most potent of which are covered by the Kyoto Protocol (see below). The six greenhouse gases addressed by the protocol are:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons (HFC's)
- Perfluorocarbons (PFC's)
- Sulphur Hexafluoride (SF₆)



The global warming potential of each gas is measured against that of carbon dioxide. For example, methane's global warming potential is 21 times that of the same unit of carbon dioxide.

The main source of carbon dioxide is the burning of fossil fuels such as oil, gas and coal, while methane is generally produced as a by-product of the decomposition of organic matter, for instance in landfill sites and, to a lesser extent, through agricultural activities.

On average every person in Staffordshire produces four times as much carbon dioxide as can be absorbed by the natural environment. That's 8.5 tonnes of carbon dioxide for every one of us and that doesn't include air travel.

What are the likely effects of climate change?

The effects of climate change will vary between regions and are still uncertain.

Hadley Centre research shows they are likely to include:

- higher temperatures all year: more heat waves in summer, possible disappearance of snow and freezing weather from all but the highest mountains
- more extreme weather events, including hurricanes, flash floods, droughts and heat waves
- less rain overall, especially in the southeast and in summer (i.e. where water shortages are already the biggest potential problem), although there may be more in the west and in winter (i.e. where excess rain is already a problem)
- more severe and frequent river and coastal floods, caused by the combination of rising sea levels and more violent and concentrated rainfall
- more frequent disruption to transport and other infrastructure
- increased risk of failure of infrastructure operating beyond the conditions for which it was designed (e.g. roads melting, rails buckling in extreme high temperatures; drains overwhelmed by the rate of rainfall)
- fewer winter deaths and illnesses as a result of cold, but more heat related summer deaths and stresses
- spread of diseases currently prevented by cold weather, e.g. malaria
- more 'outdoor' lifestyles

The Intergovernmental Panel on Climate Change (IPCC) stated in 2007 that climate change is "very likely due to the observed increase in anthropogenic greenhouse gas concentrations". IPCC defines 'very likely' as a greater than 90 per cent probability. Other key findings were:

- the probable temperature rise by the end of the century will be between 1.8°C and 4°C (3.2 -7.2°F)



- possible temperature rise by the end of the century ranges between 1.1°C and 6.4°C (2-11.5°F)
- sea levels are likely to rise by 28-43cm
- arctic summer ice is likely to disappear in the second half of the 21st century
- it is very likely that parts of the world will see an increase in the number of heat waves.

Section 2: Impact and Adaptation

To arrive at an understanding of the implications for the county, Staffordshire County Council has made use of climate change scenarios published under the government's UK Climate Impacts Programme. This uses models developed at the Met Office Hadley Centre for Climate Prediction and Research and at the Tyndall Centre for Climate Change Research based at the University of East Anglia.

Several different greenhouse gas emission projections are used by the Hadley Centre global climate model, to span the range of future possibilities. Two of these projections: 'low emissions' and 'high emissions', have been used to develop scenarios presented in a report prepared by Sustainability West Midlands entitled The Potential Impacts of Climate Change in the West Midlands.

The 'low emissions' projection assumes that global emissions of carbon dioxide will eventually fall below today's level; the 'high emissions' projection assumes that the emissions rate will increase to about four times today's level, by about 2080. Some broad climate change predictions for Staffordshire, under each of these projections, are as follows.



The 'low emissions' projection

Climate feature	Year		
	2020	2050	2080
Change in daily mean temperature, annual (°C)	+0.5 to 1.0	+1.0 to 1.5	+1.5 to 2.5
Change in daily mean temperature, winter	+0.5 to 1.0	+1.0 to 1.5	+1.5 to 2.5
Change in daily mean temperature, summer	+0.5 to 1.5	+1.5 to 2.0	+2.0 to 3.0
Change in daily mean precipitation, annual (%)	10 to 0	10 to 0	-10 to 0
Change in daily mean precipitation, winter	0 to +10	0 to +10	+10 to +20
Change in daily mean precipitation, summer	10 to 0	-20 to -10	-30 to -20

The 'high emissions' projection

Climate feature	Year		
	2020	2050	2080
Change in daily mean temperature, annual (°C)	+0.5 to 1.0	+2.0 to 2.5	+3.5 to 4.5
Change in daily mean temperature, winter	+0.5 to 1.0	+1.5 to 2.0	+3.0 to 3.5
Change in daily mean temperature, summer	+1.0 to 1.5	+2.5 to 3.0	+4.5 to 5.5
Change in daily mean precipitation, annual (%)	-10 to 0	-10 to 0	-20 to +10
Change in daily mean precipitation, winter	0 to +10	+10 to +20%	+10 to +30
Change in daily mean precipitation, summer	-20 to -10	-30 to -20	-50 to -40

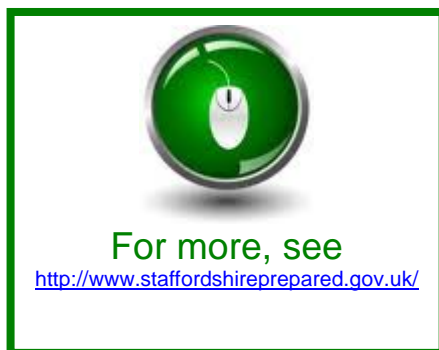


The direct impact on the communities of Staffordshire can be summarised as:

- **hotter, drier summers** – Increased drought and overheating leading to increased fatalities and hospital admissions owing to exacerbation of pre-existing illnesses in vulnerable groups.
- **Milder, wetter winters** – Increased risk of flooding.
- **More frequent extreme high temperatures** – As above. The heat wave of 2003 resulted in 20,000 excess deaths across Europe, 2000 of which were in the UK. In London, deaths of people over 75 rose by 60percent. According to projections, a heat wave similar to that of 2003 is already twice as likely to occur next year.
(source: www.actoncopenhagen.decc.gov.uk)
- **More frequent downpours of rain** – Increase in flash flooding and surface water flooding.
- **Significant decreases in soil moisture content in summer** – Changes in habitats, flora, fauna and agriculture.
- **Possible higher wind speed** – Damage to trees and buildings, risk to life and impact on road networks.

Staffordshire Resilience Forum & the Community Risk Register

The Staffordshire Resilience Forum is the body which brings together all agencies in the county with a statutory responsibility under the Civil Contingencies Act 2004 to set the county's strategic civil contingencies objectives. The forum includes all local authorities, police, fire and rescue, ambulance service, health authorities and other partners and its role is to "...establish and maintain effective multi-agency arrangements to respond to major emergencies, to minimise the impact of those emergencies on the public, property and environment of Staffordshire, and to satisfy fully the requirements of the Civil Contingencies Act 2004".



The forum has overseen the development of the Community Risk Register which is the key tool in highlighting any risk areas that may need emergency response and recovery plans. From this Register Staffordshire Civil Contingencies Unit has prepared a number of multi agency plans for the county which are known as Staffordshire Prepared Plans. All agencies involved in mitigating the incident are part of the planning process and have an important role in resolving the incident. The Risk Register is used to direct Contingency Planning, Emergency Planning and Business Continuity Management workstreams within Staffordshire, to ensure that time, money, and expertise is

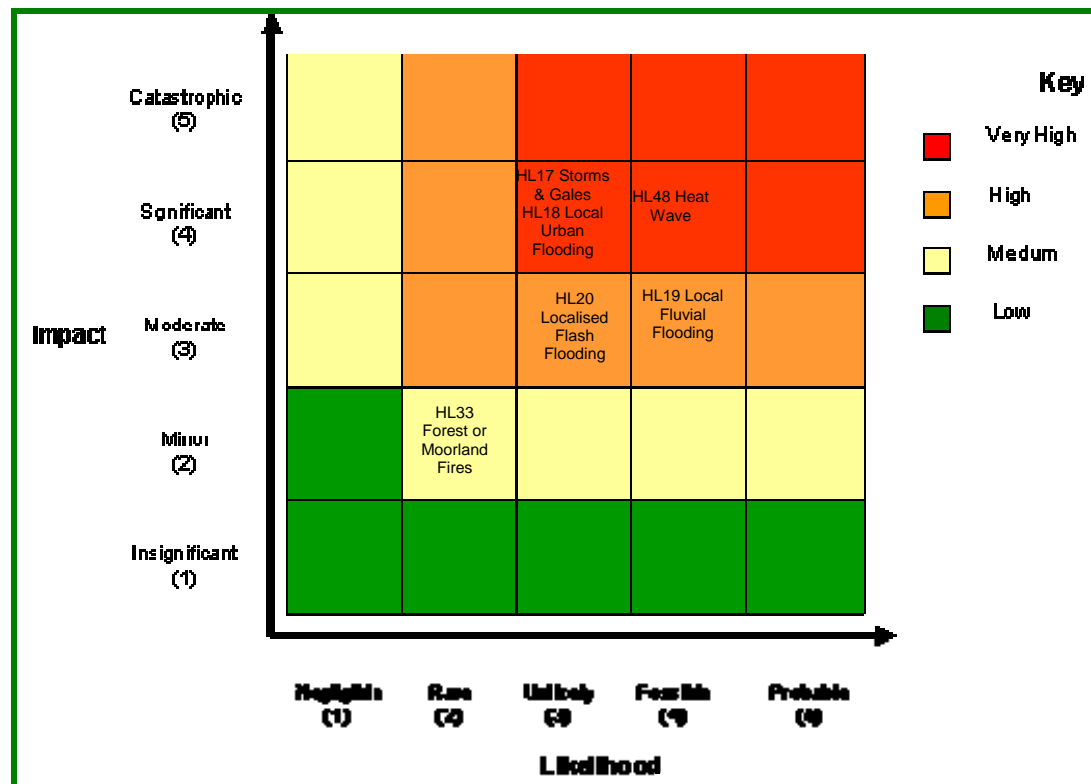


focused to provide the best resilience, response and recovery capabilities possible in respect of the hazards and risks faced.

Additionally, the publication of the Community Risk Register is to reassure the people and communities of Staffordshire, and the populations of neighbouring counties that a well-established, proactive hazard / risk assessment process operates within the county. The document explains how potential nationally identified risks / hazards have been researched, assessed, scored and prioritised. Based on this assessment process appropriate considerations have been made and actions taken to control and mitigate the impacts of these hazards and risks on the population of Staffordshire.

The Community Risk Register is produced by a multi-agency Risk Joint Agency Project Group (JAPG), working within the Civil Contingencies framework. To see the document in full, click [here](#). Development and maintenance of the Risk Register is overseen by the Staffordshire Civil Contingencies Unit (CCU), based at Beaconside in Stafford. Regular assessments of the hazards and risks are regularly undertaken by the CCU, backed up by the multi-agency JAPG meeting on a bi-monthly basis. The Community Risk Register prioritises risks in order to identify current Staffordshire risk priorities. Of the 51 risks identified through this process, six can be linked to climate change. As can be seen from the matrix below, five of these have been assessed as high or very high priorities.

Staffordshire Community Risk Register Matrix: Risks related to climate change





It can be seen that flooding represents three of these five high risk areas. The Staffordshire Emergency Flood Plan (SEFP) is the Staffordshire Resilience Forum's (SRF) multi-agency strategy for preparing for, responding to and recovering from the risk of flooding in the Staffordshire. The aim of the SEFP is to ensure coordinated, multi-agency management of a flood event within Staffordshire, the objectives being to:

1. Ensure the Plan is clear and simple to understand
2. Promote sharing of information between responder organisations
3. Define key responsibilities of responder organisations
4. Establish procedures for the management of flood emergencies
5. Identify resources and methods of obtaining them, if required in a flood emergency

Although the plan focuses on flooding from sources including river (fluvial), surface water (pluvial), reservoirs and defence failure / overtopping; the plan outlines the response to any flood, whatever the source. Exercise White Water took place in 2009 to test the plans and procedures in place.



Section 3: Policy Framework

International Policy

Kyoto Protocol

Created in 1997, this set a binding global target for decreasing emissions of greenhouse gases by 5.2 per cent over the period 2008-2012, based on 1990 emissions. It finally came into force on 16 February 2005 when Russia ratified it, as this meant that the ratifying parties accounted for at least 55 per cent of the carbon dioxide emissions in 1990.

As part of the protocol, the EU committed to reducing greenhouse gas emissions to eight per cent lower than 1990 levels by 2008-2012. This was split in various ways between the member states. For example, Germany committed to a 21 per cent reduction, while Portugal was allowed a 27 per cent increase.

The UK target under the Kyoto protocol was a 12.5 per cent decrease based on 1990 levels. However, the UK then set its own domestic target of a 20 per cent decrease in carbon dioxide emissions on 1990 levels by 2010. In addition, an aspirational target of a 60 per cent decrease by 2050 was announced in the 2003 Energy White Paper.

Gleneagles Communiqué

June 2005 saw the publication, in advance of the Gleneagles G8 Summit, of a joint statement by the world's principal national science academies. In summary the statement declares that:

- there is now strong evidence that global warming is occurring
- it is likely that most of the warming in recent decades can be attributed to human activities
- this warming has already led to changes in the Earth's climate
- it is vital that all nations identify cost-effective steps that they can take now to contribute to substantial and long-term reductions in net global greenhouse gas emissions.

It also states that even if greenhouse gas emissions were stabilised instantly at today's levels, the climate would still continue to change as it adapts to the increased emissions of recent decades. Further changes in climate are therefore unavoidable, and nations must prepare for them. The statement concludes by urging all nations to take prompt action to reduce the causes of climate change, adapt to its impacts and ensure that the issue is included in all relevant national and international strategies.

The statement was signed on behalf of the national science academies of Brazil, Canada, China, France, Germany, India, Italy, Japan, Russia, the United Kingdom and the United States of America, these comprising the G8 countries and the world's three largest developing countries. To all intents and purposes, credible scientific opinion is unanimous in



acknowledging the threat from climate change and the pressing need to address it. Professor Sir David King, the Government's Chief Scientific Adviser, stated that "in my view, climate change is the most severe problem that we are facing today, more serious even than the threat of terrorism."

The Stern Review

In October 2006, a report on the economics of climate change was produced by Sir Nicholas Stern, former Chief Economist of the World Bank. It considered in particular the economic costs to the world of action versus no action. The main conclusions of this report can be summarised as:

- the benefits of strong, early action to reduce climate changes outweigh the costs
- the Review estimates the annual costs of stabilisation at 500-550ppm (parts per million) carbon dioxide, equivalent to around one per cent of gross domestic product (GDP) by 2050 – a level which is significant but manageable
- the impacts of climate change are not evenly distributed – the poorest countries and people will suffer earliest and most
- climate change may initially have small positive effects for a few developed countries, but is likely to be very damaging as a result of the much higher temperature increases expected by the middle and end of this century under business as usual scenarios.
- emissions have been, and continue to be, driven by economic growth; yet stabilisation of greenhouse gas concentrations in the atmosphere is feasible and consistent with continued growth
- the transition to a low-carbon economy will bring challenges for competitiveness but also opportunities for growth
- reducing the expected adverse impacts of climate change is, therefore, both highly desirable and feasible.



The Copenhagen Summit

With the Kyoto Protocol due to expire in 2012, the Copenhagen Summit was intended to build it by uniting the US, China and other major developing countries in an effort to curb global greenhouse gas emissions. However, the summit did not result in a legally binding agreement or a commitment to reach one in the future. What did come of it was the Copenhagen Accord in 2010, which included a commitment to keep the global increase in temperature below 2°C, and to achieve 'the peaking of global and national emissions as soon as possible'.



Programmes for funding for climate related projects in developing countries including financial incentives for preserving forests were also established.

National policy

The Climate Change Act 2008

Two key aims of this Act were:

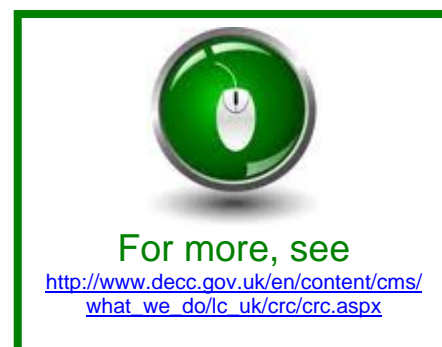
- to improve carbon management, helping the transition towards a low-carbon economy in the UK
- to demonstrate UK leadership internationally, signalling a commitment towards reducing global emissions ahead of the Copenhagen summit.

The main provisions of the Act include:

- A legally binding target of at least an 80 percent cut in greenhouse gas emissions by 2050, to be achieved through action in the UK and abroad. Also a reduction in emissions of at least 34 percent by 2020. Both these targets are against a 1990 baseline.
- A carbon budgeting system which caps emissions over five-year periods, with three budgets set at a time, to help us stay on track for our 2050 target. The first three Carbon budgets will run from 2008-12, 2013-17 and 2018-22, and were set in May 2009.
- Further measures to reduce emissions, including the Carbon Reduction Commitment Energy Efficiency Scheme.
- A requirement for the Government to report at least every five years on the risks to the UK of climate change, and to publish a programme setting out how these will be addressed. The Act also introduces powers for Government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks.

The Carbon Reduction Commitment (CRC)

Established under the Climate Change Act 2008, this is a Government scheme operated by the Department of Energy & Climate Change (DECC) and the Environment Agency to incentivise energy efficiency by a means of financial and reputational levers. It is mandatory for all organisations that used more than 6,000 MWh (Megawatt Hours) of electricity in 2008 and have at least one half hourly read meter in operation. It covers an estimated 6,000 qualifying organisations, one third of which are in the public sector. Staffordshire Police are included and have registered for the scheme.





The original vision for the CRC was a cap and trade scheme. Put simply, participating organisations would determine their estimated carbon emissions and apply for sufficient carbon credits (or carbon allowance) to cover them. Self-certification of emissions is allowed, but the process will be backed up by independent risk-based audits of 20 per cent of organisations per year. There needs to be, therefore, some justification for the level of allowance which has been bid for, based on the monitoring and reporting of our actual energy consumption. Should the organisation emit less CO₂ than anticipated (i.e. as a result of its efforts to improve energy efficiency) it would then be able to retain its surplus allowances for future years or sell them on the open market. Conversely, if the organisation emitted more CO₂ than anticipated, then it would need to buy additional carbon allowances on the open market to cover the gap. In this way, all payments into the scheme would be recycled to participants in amounts which reflected their level of success in managing their carbon emissions. The Government will also produce a performance league table of all organisations covered by the scheme, so our carbon emissions and performance in reducing them will be rated alongside all businesses, not just other police forces or public sector organisations.

In the Spending Review of 2010, the Coalition Government announced that the CRC will be simplified to reduce the burden on businesses, in that revenue from the sale of CRC allowances, totalling £1 billion a year by 2014/15, will be used to support public finances, including spending on the environment, rather than recycled to participants.



Local Policy

The Staffordshire Declaration on Climate Change

Along with Staffordshire County Council and all district authorities in the county, Staffordshire Police Authority has signed the Staffordshire Declaration:

We acknowledge that:

- evidence shows that climate change is occurring
- climate change will continue to have far reaching effects on the UK's people and places, economy, society and environment.

We welcome the:

- social, economic and environmental benefits which come from combating climate change
- emissions targets agreed by central government and the programme for delivering change, as set out in the UK Climate Change Programme
- opportunity to lead the response at a local level, encouraging and helping local residents, local businesses and other organisations – to reduce their energy costs, to reduce congestion, to adapt to the impacts of climate change, to improve the local environment and to deal with fuel poverty in our communities
- endorsement of this declaration by central government.

We commit our organisation from this date to:

- work with central government to contribute, at a local level, to the delivery of the UK Climate Change Programme, the Kyoto Protocol and the target for carbon dioxide reduction by 2010
- participate in local and regional networks for support
- within the next two years, develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to our local priorities, securing maximum benefit for our communities
- publicly declare, within appropriate plans and strategies, the commitment to achieve a significant reduction of greenhouse gas emissions from our own operations, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services
- assess the risk associated with climate change and the implications for our services and our communities of climate change impacts and adapt accordingly
- encourage all sectors in our local community to take the opportunity to adapt to the impacts of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action
- help local communities to develop their own renewable energy projects, or to obtain community benefits from such projects in their area
- monitor the progress of our plans against the actions needed and publish the result.



Staffordshire Strategic Partnership

Block 5 of the Local Area Agreement concerns Sustainable Development, and declares the following vision:

"Staffordshire will seek and adopt innovative and locally appropriate solutions to halt and, if possible, reverse environmental resource depletion and consequential problems such as climate change, caused by the collective failure to account for the non-human elements of the economy, the aim of which will be to find more sustainable ways to meet the economic, social and environmental needs of present generations that will not compromise the ability of future generations to meet their own needs."

In June 2008, with our partners and led by Staffordshire County Council, we launched the 'Our County, Our Climate, Our Choice' website. www.staffsoc3.org.uk is intended as a guide to help the residents of Staffordshire through the morass of information relating to climate change on the web. It aims to direct people straight to the most relevant, up-to-date and reliable information and offers advice and support for anyone wanting to take action at work or at home.



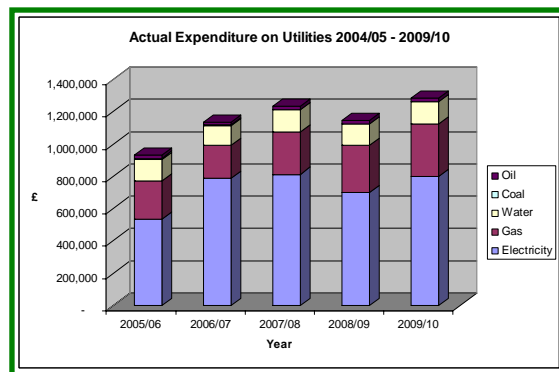
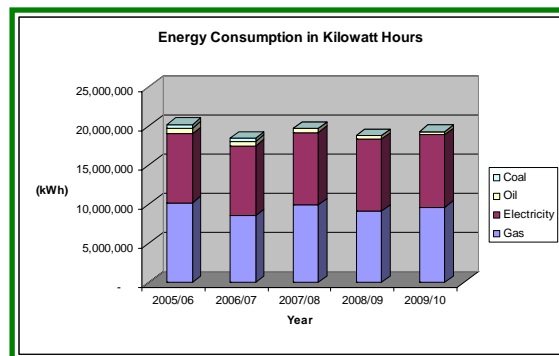
Section 4: Energy & Buildings

Why is this important?

The UK's oil and gas reserves are in decline and the country faces the prospect of becoming a net importer of fuel in the coming years, having enjoyed self sufficiency in supplies of fossil fuels for centuries. As a result, gas prices are rising, and as it is often sourced from unstable areas, prices have become similarly unstable.

Gas is used for the generation of 35.5 percent of electricity in the UK, therefore creating further price instability. The previous shift in electricity generation in the UK towards lower carbon fuels such as gas, nuclear and renewable energy has recently reversed towards greater use of coal which is still used to generate 37.7 percent of UK electricity. The DEFRA methodology used for calculating the carbon emissions from electricity consumption has been recently revised to reflect this increased dependency on coal. Whilst the UK still generates large quantities of coal, economically viable reserves are likely to run out in 10-15 years, and prices are steadily rising. Unlike most businesses, Staffordshire Police operates 24 hours a day, 365 days a year, and many of our premises remain occupied throughout.

Consequently, our running costs and the carbon emissions from our buildings are relatively high. The financial impact of the rise in energy prices on force budgets can be seen in the charts to the right. Whilst our energy consumption has reduced by 4 percent over the past five years, our expenditure has increased by 28 percent. At



a total cost of £1.283m in 2009/10, this is a significant area of expenditure for the force. The Carbon Reduction Commitment (CRC) will also bring an added pressure. This will mean an annual additional cost of £82,000 from 2012 as the scheme starts, based on £12 per allowance at current emissions levels. In order for the Government to reach its target of £1 billion raised through the CRC by 2014/15 it is anticipated that the cost per allowance will need to rise to £18-£20, meaning an annual cost to the force (if emissions levels remain static) of £123,000 to £137,000. Therefore it is clear that anything that can be done to further reduce consumption will benefit the force financially as well as reducing our carbon emissions.



How do we manage the carbon emissions from our buildings?

- Gas and electricity are purchased in conjunction with Staffordshire County Council to increase our buying power while retaining the flexibility to switch provider when required. Staffordshire County Council's Energy Management Team closely monitors fluctuations in the energy markets to ensure the best deals are obtained.
- Building Energy Management Systems (BEMS) are installed at all major sites. This enables the Energy Management Team to remotely monitor and control heating systems across the force, to ensure they only operate when needed and to the required temperature.
- Detailed energy and water surveys are carried out every other year at all major buildings. The product of this is an action plan setting out specific improvement measures, estimated costs involved, estimated annual savings in cash and CO₂ (tonnes) and the payback period.

What progress has been made against the previous plan?

Objective	Update
New buildings will be designed to minimise energy demand and consumption with high standards of insulation and construction practice. In addition to complying with the relevant building regulations, it will be mandatory for designers to consider and apply cost effective standards that meet or exceed the authority's carbon emission reduction targets.	New buildings in the past three years have incorporated features such as movement sensitive low-wattage lighting, sealed air conditioning and heating systems, high standards of insulation and efficient boiler systems.
In conjunction with Staffordshire County Council, there will be a presumption in favour of 'green' tariffs for electricity wherever these do not incur significantly increased costs to the Authority. This supports the Government's target that renewable forms of energy should supply 10 per cent of UK electricity by 2010.	This has not yet proved to be financially viable for the force, although it is likely that we will move to national government contracts for gas and electricity which may impose the requirement on energy firms to demonstrate a proportion of green tariffs.
We will raise the profile of energy and water surveys by publishing management information to the Police Authority, developing a prioritised plan for addressing major areas of concern and supporting Business Managers in addressing issues which can be managed within local budgets.	This has been done periodically via the Police Authority Property Member/Officer Group.
An 'invest to save' approach will be taken towards financing the capital costs of energy saving or renewable energy generation projects where it can be demonstrated that such projects will result in significant cost savings over a reasonable period of time.	With the structural changes being carried out under Communities First, the decision has been taken to centralise the budgets for utilities under the Support Services department from November 2010, enabling an 'invest to save' approach to be established.
Opportunities for grant funding in support of energy management initiatives will be explored and pursued.	The main opportunities are for loans to pump-prime invest to save initiatives. However, the centralisation of budgets for utilities will now provide the flexibility to fund this and avoid the application, reporting and accounting processes required for such initiatives.
The feasibility of converting the few remaining buildings operating on oil-fired boilers to gas will be examined.	One of the two remaining buildings which run on oil will be disposed of early in 2011. Approval has been given by the Police Authority for investment to refurbish the other building, Tamworth police station, which is scheduled to include the replacement of the boiler.



Objective	Update
We will identify and pursue opportunities for use of alternative power sources such as biomass, wind, solar and ground-source heat pumps on our sites.	The actions arising from our energy management surveys will have more immediate impact for less cost. We have therefore targeted these actions before moving onto investment in alternative power sources.
We will ensure due consideration of energy-efficiency in the procurement of electrical equipment, e.g. computers, copiers, catering equipment.	This is now a key consideration, an example being our approach to developing our new IT suites to reduce the number of servers we needed and the room cooling requirements.
We will introduce an automatic power-down facility on all PC's when left switched on but unused.	A software system called Nightwatchman has been installed to do this.

What else has been done?

- We have installed half-hourly read smart meters at all sites for gas and electricity, to improve day-to-day energy management, simplify payment processes and capture consumption levels to give greater confidence in complying with the Carbon Reduction Commitment. Real-time data can be accessed online by property services staff.
- We are working closely with our partner authorities to explore opportunities to share space within public buildings. In addition to facilitating a more joined up approach to the delivery of services to our communities, this creates operating efficiencies for all partners involved, including reducing energy consumption and therefore carbon emissions. Early examples of this include the relocation of the neighbourhood policing team at Abbots Bromley to the local fire station, enabling the disposal of the police post and the relocation of Tamworth Borough Council's Community Safety Team into vacant space in Tamworth Police Station.

What has been the impact?

From October 2008 the requirement to display energy certificates in all major public buildings was introduced. The certificates show the building's energy efficiency rating on the established 'A to G' scale. All our main buildings have been assessed for the certification and the production of a supporting advisory reports. Changes in the way that we use particular sites will impact on these scores in future years. For example the relatively low score for Headquarters (Weston Road) will inevitably change to reflect the relocation of staff from Cannock Road and Hednesford. The results received to date are shown in the table below and reflect the impact of the energy efficiency actions taken to date.



Premises gradings under Display Energy Certificate requirements

Site	2008 Grade/Score	2010/11 Grade/Score (where available)	Improving
Wombourne	C (72)	C(67)	✓
Leek	C (75)		
Longton	D (81)	C(70)	✓
Lichfield	D (80)		
Cannock	D (85)	D(83)	✓
Burslem	D (98)		
Newcastle	D (98)	D(84)	✓
HQ (Weston Road)	D (98)		
Burton	E (105)		
NACF	G (152)	F(143)	✓
Cannock Road	G (172)	G(158)	✓
Tamworth	G (200)		
Lindum House *	G (200)		

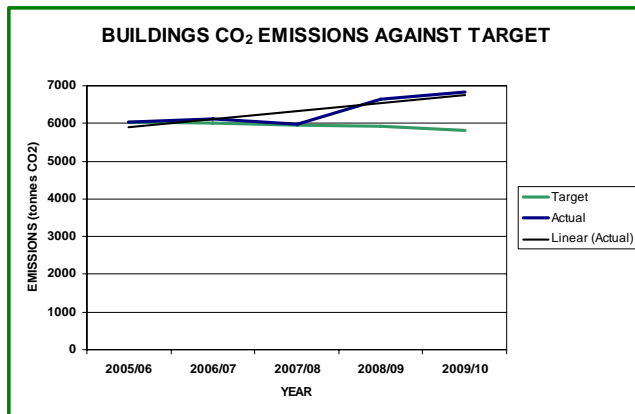
* Incomplete data for Lindum House

The measurement process behind the certification does not take into account the use of the building as the scheme is designed to encourage organisations to challenge building use as part of their carbon reduction strategy. The difficulty that this presents is that many police buildings are in operation 24 hours and are fitted with a relatively high level of mechanical and electrical provision to meet operational needs. For example, the Northern Area Custody Facility shows as 'less energy efficient' on the basis of its consumption despite being built to meet the latest standards for building construction, as it was also designed to meet standards for the safe and efficient handling of people in custody. Despite this, it can be seen that some progress is being made.

In terms of energy consumption, this has been reduced by 4 percent over the past five years which is a reduction of 1,000 MWh (megawatt hours). Gas consumption has been reduced by 5percent despite conversions taking place from oil and coal fired heating, which is now at a minimum. The impact of this has been negated to an extent by a 4 percent increase in the use of electricity. The 2005/06 baseline data showed that the operation of our buildings accounted for a total emission of 6,044 tonnes of CO₂, or 58 percent of our total emissions. The chart below shows that whilst emissions increased slightly in 2006/07, they fell again in 2007/08. The main factor in the decrease in 2007/08 was the conversion of Cannock police station from coal fired to gas boilers. The subsequent increase is due the fact that our Property Strategy has yet to be fully implemented, so the initial expansion of part of the estate has yet to be followed up by the rationalisation of other parts. The main example of this has been the relocation of our Headquarters, but there are other buildings around the county which are not fully utilised as we migrate to a new organisational structure. The effect of this

is amplified by changes to the approved methodology for calculating emissions arising from electricity use from 2008/09 which has altered to reflect the increasing national reliance on

coal for the generation of electricity.



Therefore, due to circumstances beyond our control the 4 percent reduction in consumption achieved is not reflected in CO₂ emissions, which in 2009/10 amounted to 6,838 tonnes and are showing a slightly upward trend.

How will we improve?

Objective	Owner	Timescale
Both the financial climate and uncertainties over how our structural changes will impact on our property needs have prevented rationalisation of space within our buildings and of the overall property portfolio. As this becomes clearer, a detailed programme of space planning will commence to ensure we derive the best use of our building stock	Property Services	31.3.2011
The replacements of Newcastle police station (and the Water Street Annexe) and Cheadle police station will be more energy efficient than the existing bases.	Property Services	31.3.2012
We will continue to work closely with partner authorities towards the objective of sharing space within public buildings, freeing up excess capacity for disposal.	Property Services	31.3.2012
Set aside a proportion of the maintenance budget to use on an 'invest-to-save' basis to improve energy efficiency at sites where there is a long term commitment to future use.	Property Services	31.3.2012
Continue to use the action plans developed for each site to target expenditure towards those actions with the shortest pay back period.	Property Services	31.3.2012
As half-hourly automated meters are fully rolled out, we will use the live data to analyse patterns and trends of energy consumption across all our sites in order to identify potential opportunities to improve energy efficiency.	Property Services	31.3.2011
We will examine the viability of installing surge protection and voltage optimisation equipment at major sites.	Property Services	31.3.2012



How you can help

- Switch off lights. It is a myth that it is better to leave fluorescent lights on as starting them up uses more energy than leaving them on. It is always cheaper to switch off lights, however short the time period.
- Switch off computers when not in use, e.g. when in meetings or on a break. At least switch off monitors, which can account for two-thirds of a computer's energy use. A single computer left on for 24 hours a day will cost around £25 per year. Switching it off out of hours and enabling standby features could reduce this to around £7 a year and prolong the life of the equipment.
- Switch off other electrical equipment such as phone chargers when not in use. According to the Carbon Trust, a photocopier left on overnight uses enough energy to produce 1,500 copies, and switching off non-essential equipment in an office overnight saves enough energy to run a car for 100 miles.
- Do not open windows and doors when heating or air conditioning is in operation. If rooms are too hot or if heating operates for too long a period, then inform Support Services so that something can be done. If the temperature of a room is reduced by 1° it is unlikely anyone will notice, but the heating bill could reduce by as much as 10 per cent. Most people are comfortable at 19°. Similarly, air conditioning should be set not to come on below 24°.
- Ensure windows and doors are closed when rooms are unoccupied, to allow heat to build up. Keep internal doors closed to ensure that heat is retained in offices and not dispersed into cooler corridors.
- Try to avoid placing obstructions around radiators as it will reduce their effectiveness and efficiency.
- Do not use electric heaters in offices. Not only may they be unsafe, but also they have a high kilowatt rating, and it is far more efficient to rectify inadequate heating.
- Kettles in individual offices are high in electricity consumption. Ask Support Services whether a water heater can be installed for drinks in a communal area.
- Report poorly fitted doors, defective door closures and excessively cold or draughty areas to Support Services.
- Extraction fans extract heat as well as air – turn them off when not in use to preserve heat as well as save electricity.
- Use natural light wherever possible. Keeping windows clean and fully opening blinds during the day rather than turning on the lights can reduce lighting costs by up to 19 per cent. However, blinds need to be closed overnight to retain heat.
- Lighting diffusers should be clean for maximum light dispersal. If they are not, inform Support Services so this can be done.
- Turn off hot and cold taps completely and report defective taps for attention.



Section 5: Transport

Why is this important?

Transport currently accounts for 25 per cent of the UK's total greenhouse gas emissions. Road transport contributes around 85 per cent of this, and cars account for 50 per cent of total transport emissions. UK CO₂ emissions have reduced overall since the 1970's but most of these savings have occurred in industry which has cut emissions by 40 per cent due to the closure of coal fired power stations, improvements in manufacturing processes and the overall decline in manufacturing industry. However, emissions from transport continue to rise. Although the proportion of private cars on the road in the UK has increased from around 70 per cent to around 80 per cent between 1970 and 2000, the share of CO₂ emissions has decreased. This is due to improvements in engine and car design and the reduction in average CO₂ emissions during the past 15 years. However, the growth in the number of light duty vehicles over the past 20 years has resulted in their share of CO₂ emissions increasing. Although the number of HGV's on the road has not changed much in the last 30 years, their share of CO₂ emissions has increased significantly as freight transport has moved onto the roads.

Vehicles are the fastest growing source of carbon dioxide but also contribute to the concentration of nitrogen and sulphur dioxide and particulates in the atmosphere. Vehicles fuelled by petrol contribute more to toxic emissions than those using diesel although the latter, whilst being more energy efficient, emit other substances such as nitrous oxide and particulates, which can cause respiratory problems.

Our use of vehicles is, however, vital to operational policing and supporting activities, and as the organisation has grown in size over recent years there has been a gradual growth in the number of vehicles we use and the level of their use. In addition to our owned fleet, we also have to consider the vehicles we hire, business mileage carried out in private vehicles (the grey fleet), commuting to work, use of public transport and flights.

To give an idea of the level of our reliance on Transport, during 2009/10:

- We had a fleet of 558 vehicles which completed more than 9.4 million miles, resulting in an estimated carbon emission of 2,255 tonnes
- Additionally, we hired a number of vehicles which completed 870,000 miles, resulting in an estimated carbon emission of 429 tonnes
- Staffordshire Police officers and staff completed 2.29 million business miles in their own vehicles, resulting in an estimated carbon emission of 651 tonnes
- Our expenditure on vehicle fuel was £1.15m.



In order to significantly reduce the financial and environmental costs arising from our use of vehicles our only option is to either travel less or improve the efficiency of our transport arrangements.

How do we manage the carbon emissions from our transport?

- Our fuel card provider captures mileage data for our main vehicle fleet as vehicles are refuelled. This data is then fed into our fleet management system, which enables mileage, consumption and carbon emissions to be continually monitored on a vehicle-by-vehicle basis and ensures servicing schedules can be maintained which optimises fleet efficiency.
- Mileage and consumption data is also accessible online to any member of the force via the intranet to assist in the efficient management and deployment of the fleet.
- All business mileage is captured within the force's payroll system which can produce management information to support the monitoring of the levels of mileage completed on an individual basis.
- A whole-life costing approach is taken towards the vehicle fleet, whereby vehicles are disposed of at the optimum point. There is a balance to be achieved between the replacement of vehicles with more modern and efficient alternatives against the environmental cost of vehicle disposal and new vehicle manufacture.
- Black boxes are installed in all vehicles which, amongst other benefits, can provide data on how efficiently our vehicles are being driven.
- We have developed a Green Travel Plan for the force, part of which involved capturing data on people's travel to work arrangements.

What progress has been made against the previous plan?

Objective	Update
We will continually review our vehicle fleet to identify opportunities to move towards alternative fuel use, such as bio-diesel, electric power, LPG and hybrid vehicles.	Opportunities have been examined, although whole life costs have proved that electric and hybrid vehicles are not yet at a price or level of performance whereby this would be feasible.
Reduce our use of hired vehicles by increasing the number of vehicles on the official fleet, ensure that only the most efficient vehicles are hired and ensure that all mileage and CO ₂ rating data is captured for all remaining hired vehicles.	A number of second hand vehicles were purchased to meet particular operational needs which enabled us to reduce vehicle hire by 55percent between 2007/08 and 2009/10.
Tighten up procedures so that vehicle servicing is carried out according to manufacturers' schedules to ensure vehicles are operating at optimum efficiency levels.	Delays in servicing have been reduced, though this still needs to be closely monitored and improved upon.
Staff will be encouraged to cycle to work with the introduction of a scheme whereby any member of staff can lease a bike and safety equipment, the cost being tax and National Insurance-deductible.	The scheme has now been in place for over two years and has been a great success. Over 770 bikes have now been leased under the scheme. The scheme has also delivered an efficiency saving of over £60,000 for the force so far as employers' NI contributions are not paid on individual's salary sacrifices.
Facilities for cyclists such as safe storage and showers will be reviewed to ensure fitness for purpose.	Improvements have been made across the force including cycle racks, better showers and changing facilities and drying cabinets.



Objective	Update
Consideration will be given to the establishment of priority parking areas for those sharing car journeys to work.	This has not proved viable as it would require monitoring to ensure compliance.
We will continue to extend flexible working practices such as working from home, compressed hours etc to assist in reducing the level of commuting.	Policies are in place to allow staff to apply to do this.
We will ensure that all hired vehicles provide the highest fuel economy and the lowest rate of emissions except where operational activities demand otherwise.	An approval process has been implemented to ensure that vehicles hired are suitable for the intended activity.
Travel on buses operated in Staffordshire by Arriva and First Bus is free of charge to officers and PCSO's when on duty and in uniform. We will relaunch and encourage the use of this facility by our neighbourhood policing teams to get to and around their communities. This will be beneficial not only from an environmental point of view, but also in order to provide a high-visibility, reassuring presence to people using public transport.	Use has increased, especially by PCSO's, but it still varies around the county. As command arrangements for territorial policing change, the opportunity will be taken to achieve greater consistency to ensure increased use of public transport wherever possible.
We will introduce divisional/departmental targets for the reduction of private vehicle mileage across the force. Managers will be expected to actively manage the business mileage of staff under their supervision.	Divisional targets were implemented, but the desired reductions have not occurred.
We will investigate the possibility of altering mileage reimbursement rates so that they do not encourage unnecessary mileage to be carried out.	A review of essential users has been carried out, and proposals developed for consideration regarding the reduction of allowances to the national approved (AMAP) mileage rate. However, it is not intended to progress this in the short term.
Consideration will be given to capping the CO ₂ emissions of vehicles which can be leased under the Staffordshire County Council car leasing scheme.	Emissions have been capped at 185g/km.
We will actively monitor the number of flights being taken and distances involved.	Not a great issue as only around 25 mostly domestic flights are taken a year. Monitoring arrangements are now in place.
We will consider following other forces by introducing 'eco-driving' techniques into driver training courses.	This is incorporated into standard and advanced driver courses; on each day of the course students are required to evidence that they have demonstrated an awareness of eco-driving techniques, including appropriate use of power, advanced observations, anticipation and planning.

What else has been done?

- There has been a constant drive in recent years to maximise the proportion of the vehicle fleet which runs on diesel, and in 2010/11 approximately 85 per cent of the main vehicle fleet does so. However, with advances in petrol engine technology leading to reduced emissions, we remain open to considering all suitable options. Fuel economy and CO₂ emissions are of major importance in the process of selecting new models for the fleet, therefore we expect to see further reductions in CO₂ emissions as cleaner vehicles become available.
- Telephone and video conferencing/briefing provision has been expanded to more locations to reduce the need for staff to travel to meetings and briefings.
- Mobile data handsets have been introduced to reduce the need for officers to travel to stations to retrieve data from and input data to force systems.



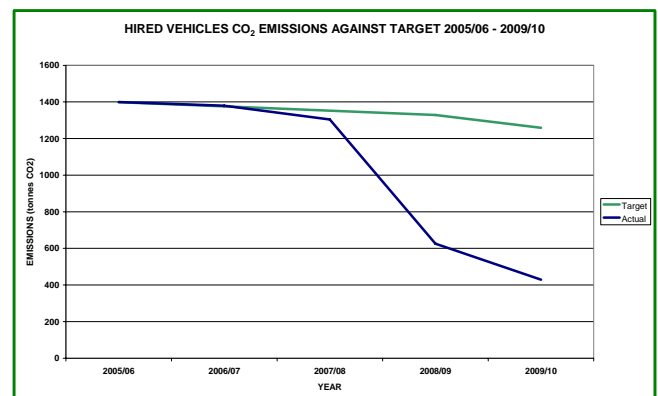
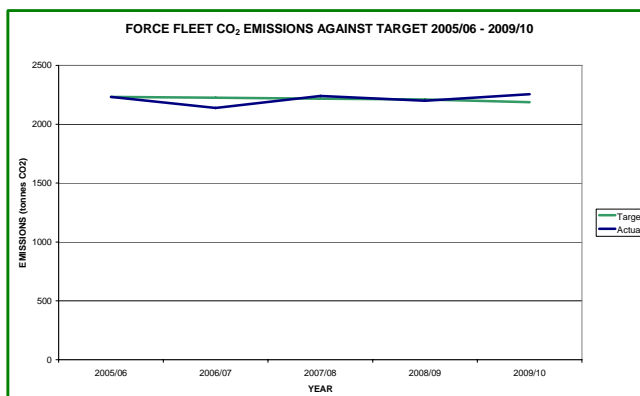
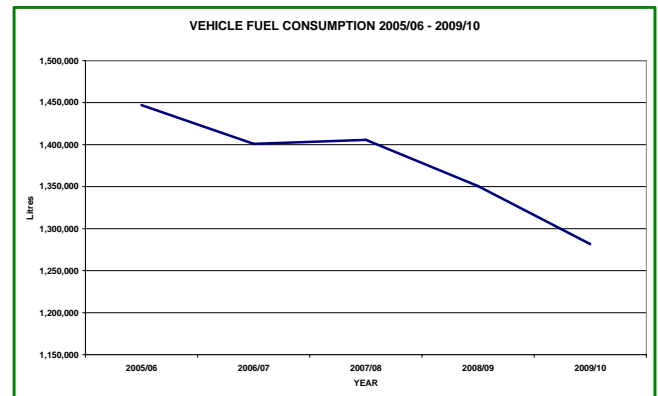
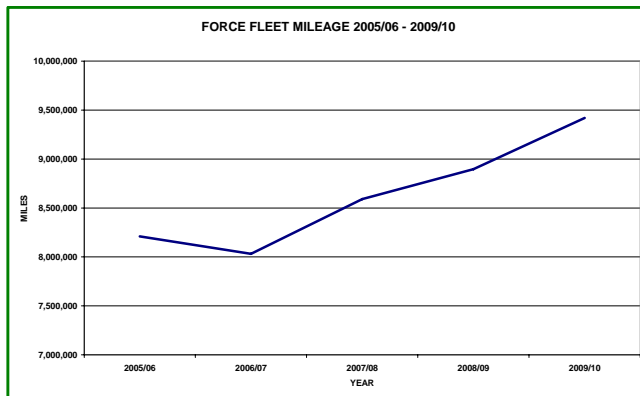
- Improvements to communications networks enable staff to access systems and their data from any computer terminal in the force area, reducing the need to travel back to their base.
- The operation of shift systems and flexible working arrangements enable staff to commute outside rush hours, shortening journey times and reducing emissions.
- Strengthening neighbourhood policing arrangements has led to an increase in foot and bike patrols. The force now uses more than 130 bikes.

What has been the impact?

The annual mileage performed by our fleet has increased by almost 15 percent over the past five years, to 9.4 million miles. Over this period, the fleet has expanded by 10 percent, therefore this indicates that we are making better use of the vehicles we have.

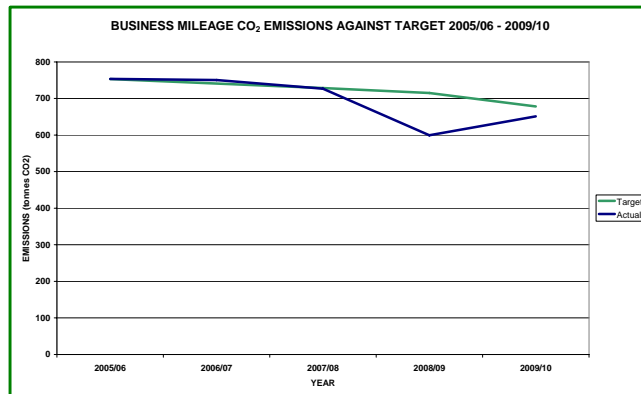
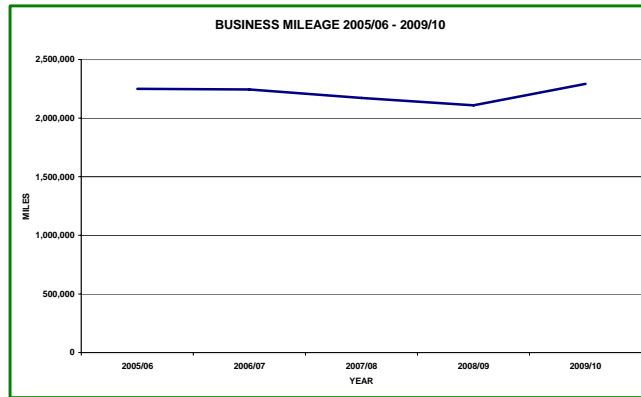
Despite this increased use, overall fuel consumption has fallen by 11 percent over the same period to 1.28 million litres in 2009/10, which is a reflection of the increased efficiency of the fleet. This has enabled us to keep expenditure on fuel at virtually the same level as 2005/06 despite the increased fuel prices.

Due to the acquisition of additional vehicles in 2009 order to reduce the requirement to hire vehicles, the emissions from the force fleet have fallen short of the reduction target set. However, this has been more than outweighed by the substantial impact of the cut in vehicle hire; emissions in this area have fallen by more than two thirds over the past five years.

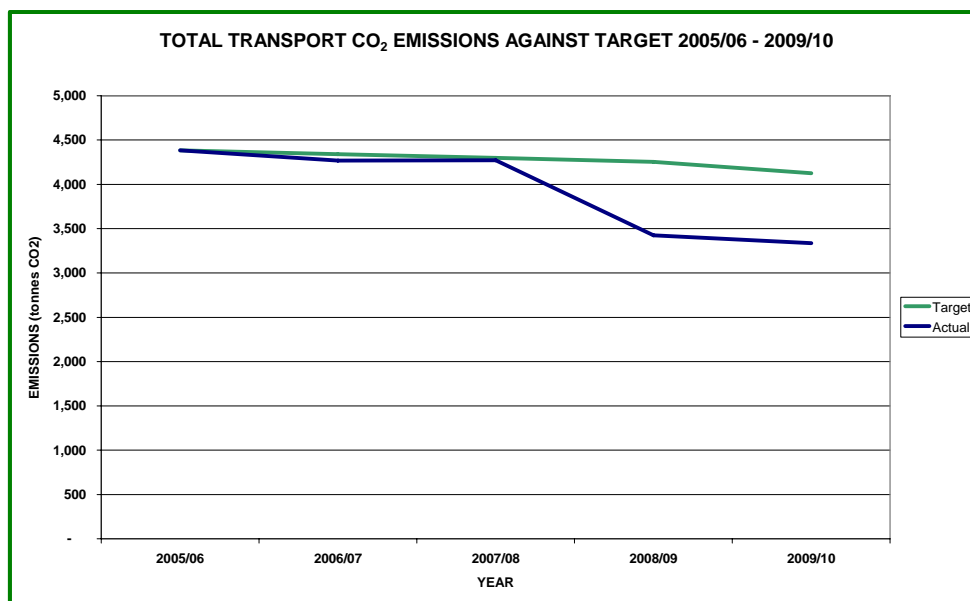




Business mileage (official mileage carried out in staff's own vehicles) has been harder to reduce, and the number of miles being carried out by what is known as the 'grey fleet' has returned to 2005/06 levels after falling in the intervening years. However, a reduction in emissions is demonstrable due to a change in the calculation methodology used, which takes into account the national average proportion of petrol/diesel vehicles privately owned, their average fuel consumption and CO₂ emissions. Whilst 2005 data has been used up until 2007/08, these factors were updated by DEFRA during 2008. Whilst this shows that the target has been achieved in this area, it is also clear that the increasing trend in business mileage needs to be reversed.



When all CO₂ emissions from transport are combined, it can be seen from the chart below that the target to reduce by 258 tonnes CO₂ by 2009/10 has been far exceeded, that actual reduction achieved being 1,050 tonnes CO₂.





How will we improve?

Objective	Owner	Timescale
The allocation of the vehicle fleet is being completely reviewed to ensure the appropriate types and numbers of vehicles are available for use by operational and support functions as we move into the new force structure. This, together with the overall reduction in the size of the organisation will create opportunities to rationalise the overall fleet, which has increased by 10percent over the last five years.	Transport	31.3.2011
Closer monitoring of vehicle utilisation rates will be implemented to ensure that we make the best use of the available fleet. In addition to the mileage data already available, the planned introduction of vehicle key cabinets will enable us to monitor down time more closely.	Transport	31.3.2012
Tighter controls over vehicle hire will be implemented to ensure that we only hire when absolutely necessary. It is hoped that further reductions are achievable; however this needs to be balanced against the need to reduce the amount of business mileage performed. There is a break even point of around 80 miles, whereby it is more cost effective to hire a vehicle than to permit the use of a private vehicle, and enforcement of this to reduce the cost of business mileage may increase the hire requirement. All vehicles hired will be selected to provide the highest level of economy and the lowest emissions possible, taking into account the intended use.	Transport	31.3.2012
We will continue to monitor vehicle servicing in relation to the planned intervals to ensure the fleet is operating at maximum efficiency levels.	Transport	31.3.2012
Continue to examine the viability of the use of alternative fuels, taking into account available grants, developments in the local infrastructure and whole life costs.	Transport	31.3.2012
We will enter the Energy Savings Trust's Transport Advice Programme, at no cost to the force, to provide an external validation of our approach to the management and reduction of carbon emissions from our transport.	Transport	30.9.2011
A review of logistics across the force is being carried out which will identify the potential to combine arrangements for the transportation of mail, equipment, forensic exhibits and detained property, reducing travelling distances.	Property Services	31.3.2011

How you can help

- Consider whether every journey you make is strictly necessary. Is there an alternative way of communicating with an individual or group?
- Make the most of the technology available such as conference calling, video conferencing and mobile data to cut down on journeys
- Choose venues for meetings sensibly to minimise the amount of travel required
- Consider using public transport, cycling, walking or car-sharing to get to work
- If you are part of a neighbourhood policing team, you can use Arriva or First buses free of charge to get to, from and around your area
- Rail is by far the most environmentally friendly means of travel over longer journeys, and should be considered wherever possible. Flights should not be taken unless absolutely necessary
- Use the cycle-to-work scheme to assist you in purchasing a bike for travelling to work. This will benefit your health as well as the environment
- Consider how you drive in relation to the job in hand. No one expects cars being driven at speed in response to incidents to achieve maximum economy, but appropriate driving in other circumstances could achieve fuel savings of up to 25 per cent
- Ensure the vehicle you are driving is properly checked and maintained. For example, correctly inflated tyres can save 2.5 per cent in carbon emissions and save the force money in fuel and tyre wear.



Section 6: Purchasing, waste and recycling

Why is this important?

The UK produces 434 million tonnes of waste each year - enough waste to fill the Albert Hall every two hours. Householders produce almost 30 million tonnes of waste on average each year. 73 percent of this goes to landfill, even though 90percent of this is recoverable - it could be recycled, composted or used to generate energy. As a society we are doing much better than in the past. In 1997 only seven per cent of England's household waste was recycled. It has almost quadrupled to 27 per cent but we are still a long way behind many of our European neighbours, who recycle more than half their waste. For every tonne of household waste produced, commercial, industrial and construction businesses produce another six tonnes.

Recycling in the UK already saves the equivalent in greenhouse gas emissions of taking 3.5 million cars off our roads. That is because virgin materials that would otherwise be used in production are conserved and the waste recycled is not being sent to landfill, which is worst environmental option for much of the waste produced in this country. The methane it produces is a potent greenhouse gas - 21 times more potent than CO₂ - and accounts for three per cent of all UK greenhouse gas emissions. Waste regulations require us to segregate our waste to minimise the amount we send to landfill, and landfill taxes have increased as an extra incentive to think carefully about our recycling and what we consume in the first place. In managing our waste we also have to comply with other legislation which is becoming ever more stringent in order to protect the environment and the health and safety of those who handle our waste (which includes our own staff). Noncompliance would cost the organisation financially and damage our reputation.

The force consumes vast amounts of goods from paper and office supplies to uniforms, operational equipment, vehicles and computers. In addition, found property is passed to us and we seize property for evidential reasons, all of which has to be stored and disposed of appropriately if not returned. We also need to dispose of clinical waste appropriately.

Environmental factors are becoming more important in making procurement decisions, and suppliers are recognising this and changing accordingly. The whole life-cycle of the products we choose needs to be considered, including where raw materials are sourced, what manufacturing processes are used, packaging, distribution, use and the potential for reuse, and disposal requirements. Our purchasing

decisions, therefore, not only affect the level of waste we produce but also affect the environmental impact our suppliers have. Making better use of our resources and minimising waste makes sense financially as well as environmentally.



For more, see

<http://www.recycling-guide.org.uk/facts.html>

Some more facts about waste

- On average, each person in the UK throws away seven times their body weight in rubbish every year.
- A banana skin can take up to two years to decompose if not disposed of properly. (source: Eco Schools)
- The volume of waste we produce in one day is enough to fill Trafalgar Square up to the top of Nelson's Column. (source: Eco Schools)
- The UK uses over six billion glass bottles and jars each year. It would take you over three and a half thousand years to sing "Six Billion Green Bottles"! (source: Waste Watch)
- Every year we need a forest the size of Wales to provide all the paper we use in Britain. (source: Waste Watch)
- The amount of waste paper buried each year would fill 103,448 double decker buses, which if parked nose to tail would go all the way from London to Milan. (source: Waste Watch)
- Every day 80 million food and drinks cans end up in landfill (being buried) - that's one and a half cans per person. (source: Waste Watch)
- We fill about 300 million square metres of land with rubbish every year, that's the same as covering the pitch at Manchester United Football Club's ground, 28,450 times. (source: Waste Watch)
- We produce and use 20 times more plastic today than we did in the 1950's! (source: Waste Watch)
- Every year the average British family throws away 6 trees worth of paper (source: Waste Watch)
- Recycling just one plastic bottle can save the same amount of energy needed to power a 60 watt light bulb for 6 hours. (source: Environment Agency)
- About 20,000 tonnes of aluminium foil packaging (worth £8 million) is wasted each year. Only 3,000 tonnes is recycled (worth £1.2 million) (Source: alupro)
- If all the aluminium cans sold in the UK were recycled, there would be 12 million fewer full dustbins each year. (Source: Alucan website)
- An average person throws away 74kg of organic waste each year, which is the same as 1077 banana skins.
- Each year food shops give away enough carrier bags to cover the whole of London with a layer of bags.
- Estimates put the amount of rubbish dropped per year in 1964 at five million tonnes. By 2001, that figure was above 25 million tonnes.
- Globally, an estimated one million birds and 100,000 marine mammals and sea turtles die every year from entanglement in, or ingestion, of plastics.
- 900 million items of clothing are sent to landfill each year.
- Producing steel from recycled materials saves 75percent of the energy needed to make steel from virgin materials. (source: Eco Schools)



How do we manage the carbon emissions from waste?

- We recycle all our waste paper, either whole or shredded for security reasons.
- We recycle cardboard, glass and plastics at major sites.
- Hazardous substances and waste electronic and electrical equipment are handled in accordance with the appropriate legislation.
- The introduction of IT systems has resulted in some reduction in the amount of paperwork being generated.
- Document scanning occurs in a number of functions to enable us to store documents electronically rather than physically, saving on paper and office space.
- We have replaced printers in offices with networked photocopiers to make printing less convenient, therefore reducing the use of paper as well as the cost of replacing printers and their consumables and electricity costs.
- More than 300 standard forms are now available for download or electronic completion via the force intranet, rather than printed in high volumes.
- Surplus furniture, computers and mobile phones are sold to staff or other organisations. Where there is no demand, items are broken down for recycling (e.g. steel frames from desks) rather than scrapped.
- Used printer cartridges and scrap mobile phones are recycled via Child Victims of Crime, a registered charity that benefits from the payments made by recycling companies.
- Returned items of uniform and operational equipment are refurbished and reissued to others where possible. When this is no longer possible, uniforms are de-badged and sold for recycling.

What progress has been made against the previous plan?

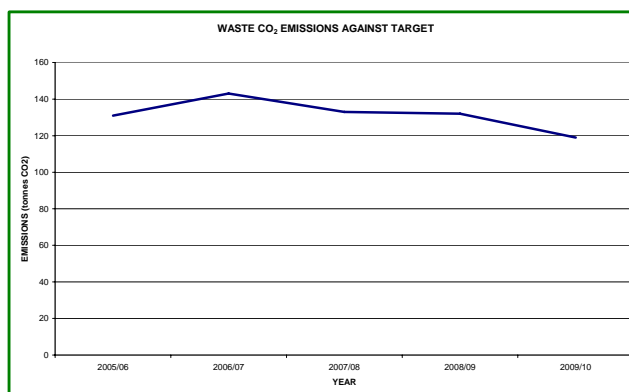
Objective	Update
We will enter joint contracts for recycling and waste collection with Staffordshire County Council and Staffordshire Fire and Rescue Service to improve our buying power and minimise the need for multiple contractors to travel to provide our service.	This has not been possible, so it is now planned that we join a police contract for the collection of waste and recycling across a number of waste streams. The procurement process is being led by Warwickshire Constabulary and should be in place in 2011.
We will expand our recycling arrangements for cardboard across the county and introduce arrangements for recycling glass and cans at larger facilities.	This has been implemented.
We will monitor the level of recycling and waste produced to ensure that container sizes and frequencies of collection are minimised.	Ongoing, this will be revisited as we move to a new combined contract in 2011.
We will ensure that arrangements for the collection of recyclable waste in all premises are sufficient to encourage recycling, e.g. paper collection bins in offices, can collection bins in canteens and communal areas.	This has been implemented to an extent, but has not been possible at smaller sites where the costs of collection for recycling cannot be justified given the quantities that would be collected.
We will review our arrangements for the disposal of found property and property seized for evidential purposes to ensure opportunities for reuse and recycling are taken and waste minimised.	This is included within a review being carried out on the management of detained property, which will be complete in 2011.



Objective	Update
Procurement processes will be revised so that as suppliers are chosen or contracts awarded, we ask: <ul style="list-style-type: none"> • does the supplier have an environmental policy or produce an environmental report? • is the supplier working within or certified to an environmental management system? • have the products or services been designed to reduce their environmental impact? 	This has been implemented.
A database will be established for all surplus equipment and furniture to be listed so that it can be reused in another part of the force. Where appropriate, items not required elsewhere will be offered for sale or free of charge to staff or donated to a voluntary group or charity.	This was implemented for the relocation of Police Headquarters in 2010. It will be continued during restructuring taking place under the Communities First programme.
We will continue to implement electronic storage arrangements to reduce the cost of consumables, for example the digital recording of interviews will remove the need to purchase and eventually dispose of vast quantities of audio tapes.	The digital recording solution is included in the provisional capital programme for IT projects in 2011/12.
We will continue to take all possible opportunities to replace paper documents with electronic substitutes or automated processes.	This will be one of the key benefits of the new Business Systems Project (HR, Finance, Payroll etc) being introduced in 2011.
We will audit the waste management arrangements of our major contractors, for example in fleet maintenance, cleaning, catering, and grounds maintenance.	This has not been completed to the level of detail intended.
We will explore how items of uniform and equipment which are currently scrapped when no longer usable may be recycled.	All surplus uniform is now sent for recycling. Further work needs to be done on other waste streams.

What has been the impact?

No target was set in the previous plan to cover emissions due to waste as it accounts for only just over 1 percent of our total emissions. However, a reduction of 12 tonnes against 2005/06 emissions (9percent) has been achieved.



How will we improve?

Objective	Owner	Timescale
In collaboration with other forces, led by Warwickshire Constabulary, we will enter into a joint contract for the disposal of waste and recycling, covering paper, cardboard, metals, plastics, glass, electric and electronic items and clinical waste.	Property Services	31.3.2012
Using the data on waste and recycling volumes available under this contract, we will focus on individual locations and waste streams to maximise recycling rates and reduce residual waste.	Property Services	31.3.2012
We will audit the waste management arrangements of our major contractors, e.g., fleet maintenance, cleaning, catering, and grounds maintenance.	Transport , Property Services	31.3.2012



How you can help

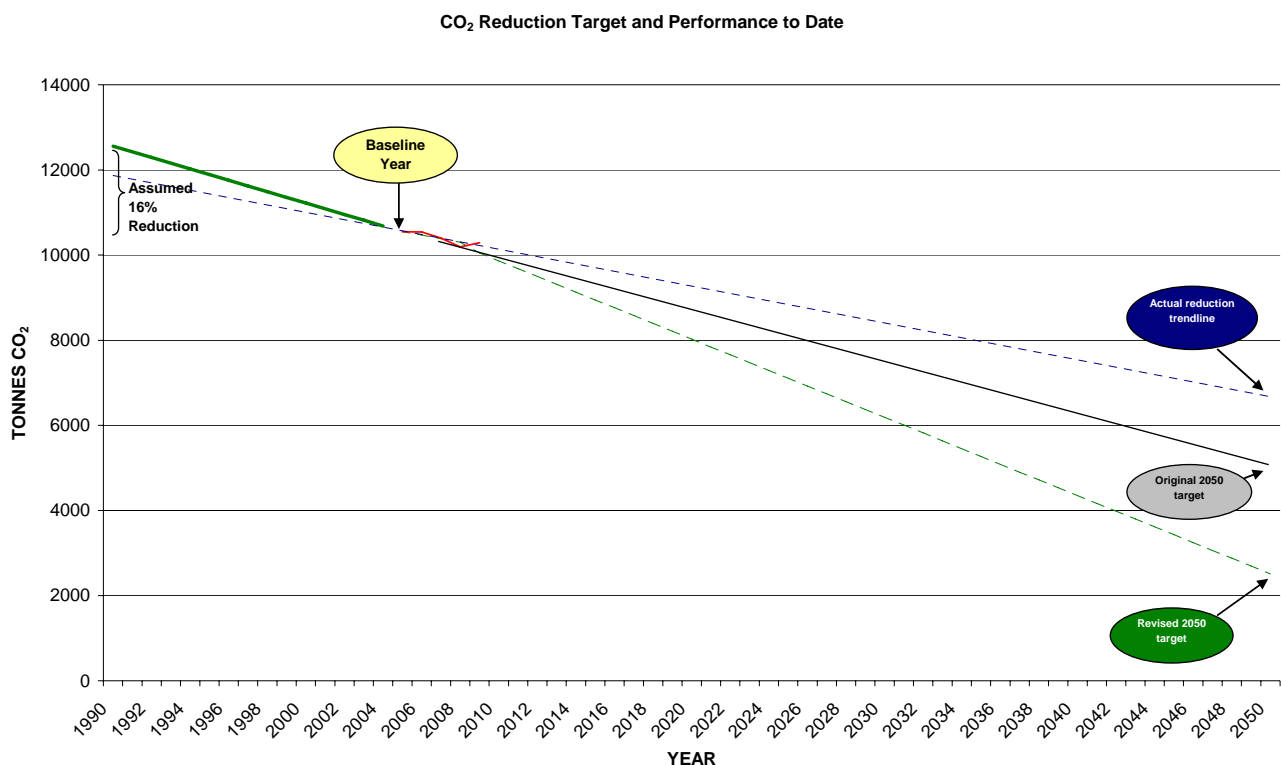
- Follow the principles of the 3Rs - Reduce, Reuse and Recycle
- Look with a 'fresh pair of eyes' at our existing activities and challenge whether we need to consume and waste what we do in the quantities that we do
- Consider whether the recovery of miscellaneous property is absolutely essential to a case. The average running cost of the force estate equates to £56 per m² per year in 2006/07. It therefore costs the force money to store property so it needs to be returned or disposed of as soon as it is no longer required. Where items cannot be returned, Property Officers need to ensure prompt disposal, preferably through sale or donation if appropriate. Disposal to landfill has to be a last resort as there is a financial and environmental cost to it
- Think before you print – do you really need a hard copy of a document or email? Do you need so many copies? Printing and photocopying on both sides of the paper and using smaller fonts can result in significant savings
- Consider whether you need to keep a hard copy of a document on file. The information contained may be available electronically. Unless it needs to be retained in accordance with the Force Retention Policy, it can be disposed of by recycling in order to save space
- Reuse wherever possible – the back of obsolete forms for scrap paper, used envelopes for internal mail. Return serviceable items you know you will never use so that they can be reused by someone else to avoid buying new
- Make sure you separate out the waste you produce and dispose of it appropriately using the facilities available such as paper collection bins, and encourage colleagues to do the same. This has to be strictly adopted
- because if waste is contaminated in any way, e.g. just one drinks can in a bag full of paper, it has to go to landfill
- Cancel any junk mail and unwanted publications you receive at work
- Submit any ideas which will result in reduced paperwork to the Force Suggestion Scheme
- If you are responsible for accepting deliveries of goods, where possible ensure that suppliers take packaging materials back with them. You are entitled to do that, and it places the burden on suppliers to minimise their packaging and waste rather than pass the problem (and cost) to us.



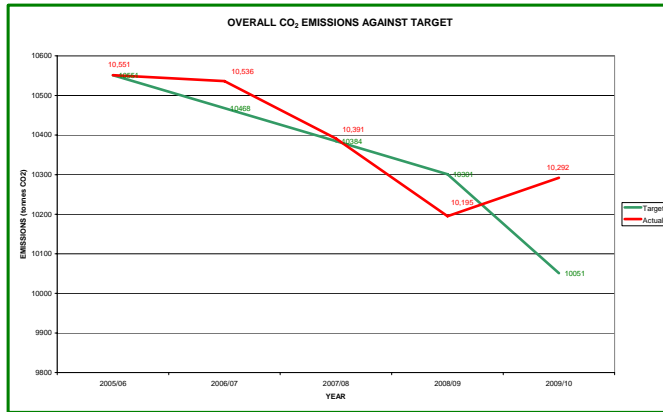
Section 7: Performance Summary & Future Targets

The previous Environmental Policy and Strategy set out targets for carbon reduction for 2008/09 and 2009/10. These were based on an agreement by all LAA partners to reduce by 2percent in each year from a baseline figure. This agreement was based on the national government target to reduce carbon emissions by 2050 by 60percent based on 1990 levels. Clearly, no data on our emissions exists for 1990, a position which is common to most organisations. National statistics provided by the Department of Energy and Climate Change show that total emissions from the public sector fell by 16percent between 1990 and 2005. The LAA partners therefore agreed in 2007 to use 2005/06 actual emissions as the baseline from which to achieve further reductions of 2percent per year in order to meet the 2050 target. However, the Climate Change Act 2008 requires us to work towards an 80percent reduction by 2050, based on 1990 levels.

The impact of the new target is reflected in the chart below. The solid green line reflects the assumed 16percent reduction between 1990 and 2005. The solid grey line shows the original 60percent reduction target, and the dotted green line shows the new 80percent reduction target.



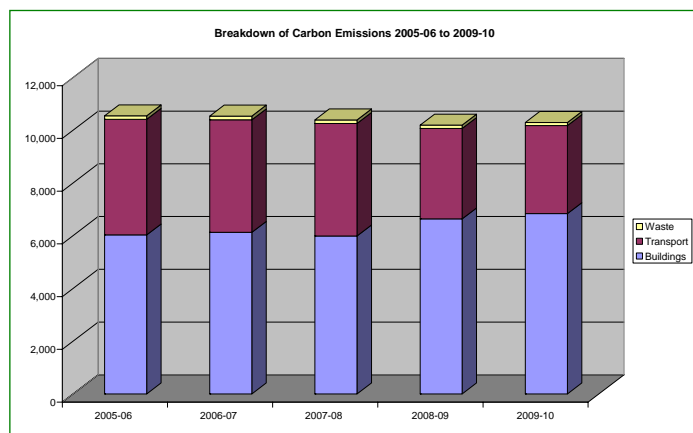
The red line shows our actual emissions from 2005/06 to 2009/10. This is magnified on the chart below. This shows that in the first year since the launch of the previous policy and strategy (2008/09), a reduction of 356 tonnes CO₂ against the baseline was achieved, compared with the target of 250. In 2009/10, however, emissions increased by 195 tonnes on the previous year, therefore missing the reduction target by 241 tonnes.



As detailed in the previous sections, over the two years we have achieved considerable reductions in emissions from our transport arrangements, but this has been negated to an extent by increases in emissions from our buildings for two reasons. Firstly, the methodology used for the calculation of emissions due to

electricity consumption has altered to reflect the shift towards the use of coal for electricity generation. Therefore, although consumption has dropped by 4 percent since 2005/06, there

is an upward trend in CO₂ emissions from buildings. Secondly, our Property Strategy has yet to be fully implemented, so the initial expansion of part of the estate has yet to be followed up by the rationalisation of other parts. The main example of this has been the relocation of our Headquarters, but there are other



buildings around the county which are not yet fully utilised as we migrate to a new organisational structure. The blue line on the chart on the previous page is a trendline which shows by how much our carbon emissions are likely to reduce by 2050 if the current rate of reduction continues and highlights the importance of taking early action to address the shortfall from 2009/10 and make progress towards the new emissions target. The targets for the next five years are summarised in the table below.

Year	Target CO ₂ Emissions	Actual CO ₂ Emissions
2005/06		10, 551 (Baseline)
2006/07		10,543
2007/08		10,398
2008/09	10,301	10,195
2009/10	10,051	10,292
2010/11	10,200	
2011/12	9,900	
2012/13	9,600	
2013/14	9,300	
2014/15	9,100	
2015/16	8,900	

This reflects the timescales and anticipated impact of the implementation of our property strategy on the emissions from our buildings. Meeting the emissions target of 9,300 during 2013/14 should bring performance back on track towards the 2050 target.



Section 8: Governance, ownership & management

The Chief Constable is responsible for the force's response to climate change, the Director of Resources being the Executive Lead with responsibility for the relevant areas of business. There is also a Police Authority member selected to lead on the issue, and in this way the Authority will maintain an overview of progress. Our performance will also be monitored in the context of the Authority's contribution to the Local Area Agreement by the Staffordshire Strategic Partnership.

Our overall performance will be reviewed annually, and an annual report produced for the Police Authority which provides headline performance information and describes specific initiatives carried out during the previous year and the costs and benefits involved.

There is no dedicated team within the Force that focusses on carbon management. An approach is taken whereby the responsibility is integrated into the relevant function and this strategy reflected in plans and policies for property, transport and procurement.

Specific actions based on the strategy will be agreed and performance against them monitored via forums which are already in place, including the Property Strategy Group and the Transport Strategy and Policy Advisory Group.