Climate Change Strategy

Central Bedfordshire Council's plan to cut carbon, be more energy and fuel efficient, and to be prepared for the impacts of a changing climate

Foreword

I am very pleased to present the Central Bedfordshire Council's first Climate Change Strategy.

The impact of a changing climate on the Council and how it delivers services is a key challenge. The Council acknowledges the importance of taking action now in order to reduce harmful CO_2 emissions and to ensure that Central Bedfordshire is well equipped to cope with inevitable climate change in years to come.

The Council's strategic vision is to 'improve the quality of life of all in Central Bedfordshire, and enhance the unique character or our communities and our environment'. Ensuring that a robust response to the challenges that climate change presents the Council with is a key component of delivering this.

The Council also recognises that many of the measures taken to cut our carbon footprint will also help the Council operate more efficiently, cut costs and go some way to protecting us from the inevitable future increases to fuel and energy costs.

The Climate Change Strategy will enable Central Bedfordshire, through leadership from the Council and its partners, to strive towards a low carbon society, greener economy and a healthy, sustainable area.

This Strategy makes our commitment to reduce CO_2 emissions and tackle climate change. By working to minimise the impacts of our activities, we can contribute to the improvement of the global environment through local action. For our ambitions to be realised they will need the support and contributions from our many partners, stakeholders, elected members, managers and staff.

The Council is already working hard to reduce its CO_2 emissions and we have set a challenging target of a 60% reduction in emissions from Council activities and operations by 2020. We are also working proactively with our partners on climate change projects and to also ensure that we can all benefit from the considerable financial savings to be made through being more energy efficient.

Cllr Tom Nicols, Portfolio Holder for Sustainable Communities

Contents

Glossary of terms

1. **Adaptation:** The action taken to minimise the adverse impacts of climate change, and take advantage of any opportunities that are presented.
2. **Carbon dioxide (CO_2):** One of the naturally occurring gases in our atmosphere, but it is also released by burning any type of carbon compound such as coal, gas or oil. As a result of the world's increasing use of fossil fuels the amount of CO_2 in the atmosphere has increased significantly over the last century.
3. **Carbon Footprint:** A carbon footprint is a measure of the total amount of carbon dioxide emissions that are directly and indirectly caused by human activity.
4. **Climate change:** The changes in global weather patterns over an extended period of time (usually 30 years or longer) and the effects they produce. Weather occurs over a much shorter period of time, and does not necessarily reflect the trends associated with climate change.
5. **Department for Energy & Climate Change (DECC):** The government department responsible for energy policy and climate change mitigation policy. (www.decc.gov.uk)
6. **Greenhouse effect:** Gases like carbon dioxide (CO_2) and methane (CH_4) in the atmosphere allow solar radiation to warm the earth. Some of the resulting warmth escapes back into space warming the earth. Without them the planet would freeze and life would be impossible. The greenhouse effect is increasing, making the earth warmer, and this in turn is changing the global environment.
7. **Greenhouse gases:** These include water vapour, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.
8. **Methane (CH_4):** A greenhouse gas released by the anaerobic decay of organic matter. Large amounts are generated by the burial of waste in airless landfill sites. Although there is less methane than carbon dioxide in the atmosphere, its affect as a greenhouse gas is 21 times more potent than CO_2.
9. **Mitigation** This refers to the action that is taken to reduce greenhouse gas emissions and tackle climate change, thereby limiting the most severe impacts.
10. **National Indicators:** The performance indicators on which local authority performance is assessed. The indicators that relate to climate change are:
    - NI 185: CO_2 reduction from local authority operations
    - NI 186: per capita reduction in CO2 emissions in the LA area
    - NI 187: Tackling fuel poverty - % of people receiving income based benefits living in homes with a low energy efficiency rating
    - NI 188: Planning to Adapt to Climate Change
11. **UK Climate Impacts Programme (UKCIP):** Provides support for organisations to adapt to the impacts of climate change and is responsible for the compilation of the UK climate projections (UKCP09). (www.ukcip.org.uk)

1. Setting the context for action

Climate change is a real and immediate threat for us all. Carbon dioxide (CO_2) levels have already reached their highest level for almost half a million years and are rising faster than ever.

Like all other local authorities, Central Bedfordshire Council has a key role to play in mitigating the effects of climate change – both as a community leader and through the services we provide. The Council is also a considerable consumer of energy and a direct source of CO_2 emissions arising from our activities and buildings.

Central Bedfordshire will not be immune to the impacts of climate change and the Council will need to act now to adapt and manage risks to service delivery, local communities, infrastructure, businesses and the natural environment.

The Council's climate change challenge falls into three key areas:

- Cutting the Council's carbon footprint;
- Cutting Central Bedfordshire's carbon emissions; and
- Preparing for the impacts of a changing climate (climate change adaptation).

Aside from the moral and environmental case for taking action to tackle climate change there are many other drivers for the Council to address this issue. These include:

- the considerable scope for more efficient use of energy to realise cost savings;
- the future impact of the increase in energy and fuel prices;
- the requirements of the Climate Change Act (2008), including the Council's compulsory participation in schemes such as the Carbon Reduction Commitment (CRC) energy efficiency scheme and Display Energy Certificates (DECs) and the financial penalties for non compliance with the requirements of these; and
- how the Council's effectiveness at addressing this issue in the Council's operations and Central Bedfordshire area is assessed through the Comprehensive Area Assessment (CAA) and the Local Government Performance Framework.

Specifically these will have three main impacts on the Council:

- Financial;
- Service delivery;
- Reputational and the Council's role as a community leader.

The level of activity taken by the Council will determine whether there are beneficial or detrimental impacts across the core areas of the organisation.

The financial impacts of climate change on the Council:

Climate change **mitigation** is ultimately all about using energy and fuel more efficiently. This in turn gives scope for financial savings. Taking action now will lead to savings rather than massive costs later.

For example, the Council's annual energy spend is estimated to be in the region of £3.4 million. A 10% reduction in the Council's carbon footprint would save up to £340,000 per annum on energy costs alone, and an overall carbon reduction target of 35% over the next 5 years would save around £1.2 million a year (not taking into account increases in energy costs).

These potential energy savings should however be seen in context against the threat of a volatile energy market. Energy and fuel costs have seen a dramatic rise in recent years with energy prices increasing by well over 50% since 2004. This trend is not expected to change, with Ofgem predicting in October 2009, that energy prices are likely to increase by at least 60% over the next seven years. As the unit price of energy and fuel increase, energy efficiency measures will be needed to keep the subsequent increases in spend to a minimum.

Through the Climate Change Act (2008) the Government is introducing a range of additional legislative drivers for action to tackle climate change. This includes the Carbon Reduction Commitment (CRC), which, the Council will be included in from April 2010. CRC uses carbon trading and performance bonuses and penalties as financial drivers to motivate organisations to invest in energy efficiency and carbon management improvements across their estates. In the first year it is estimated that cost of allowances for this Council will be in the region of £300,000.

In CRC the Council will receive an annual payment based on the previous year's performance; this recycles the expenditure made on allowances plus or minus a payment made for good or poor performance. It gives a financial incentive to invest in measures that will increase energy efficiency and reduce CO_2 emissions. The Council's performance, in relation to the 5,000 other qualifying organisations, will also be published in a performance league table, meaning that CRC will also have a reputational impact on the Council depending on how well we perform.

Climate change **adaptation** is primarily about identifying how changes in the climate will impact on the Council and its services. Before the Council can determine any financial implications an assessment of the risk and opportunities will be undertaken. This will be carried out during 2010/11 so that the Council can use this as the basis for developing a climate adaptation plan which will then determine future resourcing requirements.

Impacts on the delivery of the Council's services

Climate change will affect the social, economic and environmental well-being of Central Bedfordshire's communities and businesses. The Council will therefore need to ensure that the services delivered avoid the worst impacts, and take advantage of any opportunities, that result from climate change. It is also recognised that the Council's services depend, directly or indirectly, on climate and weather patterns and as a result the Council will begin planning now to incorporate these future predicted changes to the climate in the planning for future service provision, in order to avoid unnecessary costs

and damages, and maintain excellent services for the residents of Central Bedfordshire in the future.

Impacts on the Council's reputation and role as a community leader

The Council as a consumer of resources, a service provider and a community leader, has a key role in leading Central Bedfordshire's communities towards lower carbon lifestyles and enabling their moves to adopt them.

The Council can only do this effectively by working with others - including local people, businesses and partners in the public, private and voluntary sectors across Central Bedfordshire.

The Council recognises that it cannot make the Central Bedfordshire area resilient to climate change without effective partnership working. Again the Council will have to work together with local people, public, private and voluntary sector organisations and partners to plan for and adapt to the future. This will cover a wide range of issues including energy, food and water supplies, the health and care of the community, transport, planning and emergency services.

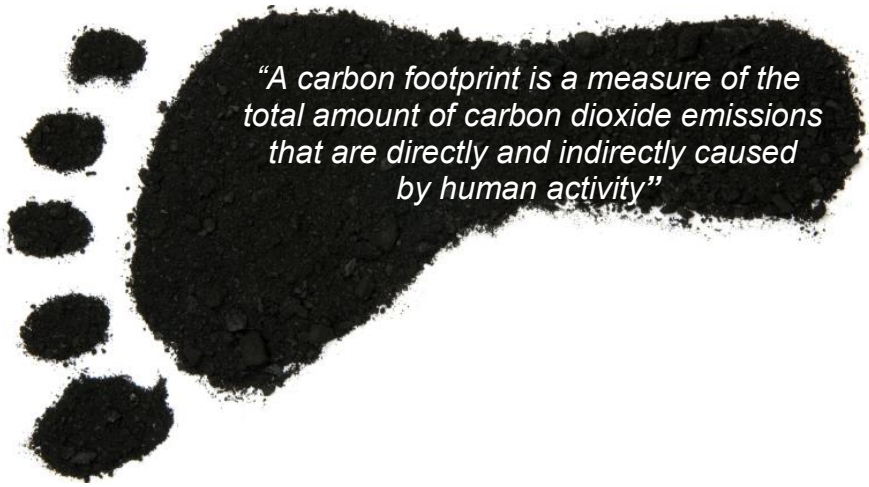
The actions of the Council will be assessed in both the area and organisational assessment elements of the Comprehensive Area Assessment (CAA).

The area assessment looks at how well the priorities for action on climate change mitigation, as expressed in the LAA and Sustainable Community Strategy, are being delivered though partnership working and also includes an evaluation of the potential for future improvement and whether local partners have the capacity and capability to deliver on their climate change priorities.

NI186: ***Per capita reduction in CO_2 emissions in the local authority's area*** is a priority action area in the Central Bedfordshire Local Area Agreement which aims to achieve a 10.7% reduction in per capita emissions by the end of 2010/11. The 2009 CAA area assessment for Central Bedfordshire highlighted that the reduction in CO_2 emissions was an area where good progress is already being made.

The organisational assessment element of CAA provides a more detailed look at the Council's management of performance and use of resources. This will investigate whether the Council is making efficient use of resources (e.g. energy) and is actively working to reduce its own carbon footprint (measured though NI185: *Percentage CO2 reduction from LA operations)* and managing the risks it faces from a changing climate.

2. The size of our challenge: understanding the Council's and the Central Bedfordshire area's carbon footprints



To understand the main sources of CO_2 emissions from the Council a carbon footprint was compiled. This was based on the requirements of NI185: *Percentage CO2 reduction from LA operations.* The Council's carbon footprint comes to **33,700 tonnes of CO_2** and relates to the period 2008/09. This is the baseline from which future performance in relation to cutting the Council's own carbon footprint will be measured.

33,700 tonnes of CO_2 would fill the Council's Priory House offices 107 times and is equivalent to the emissions caused by a plane flying around the Earth's equator 5,860 times.

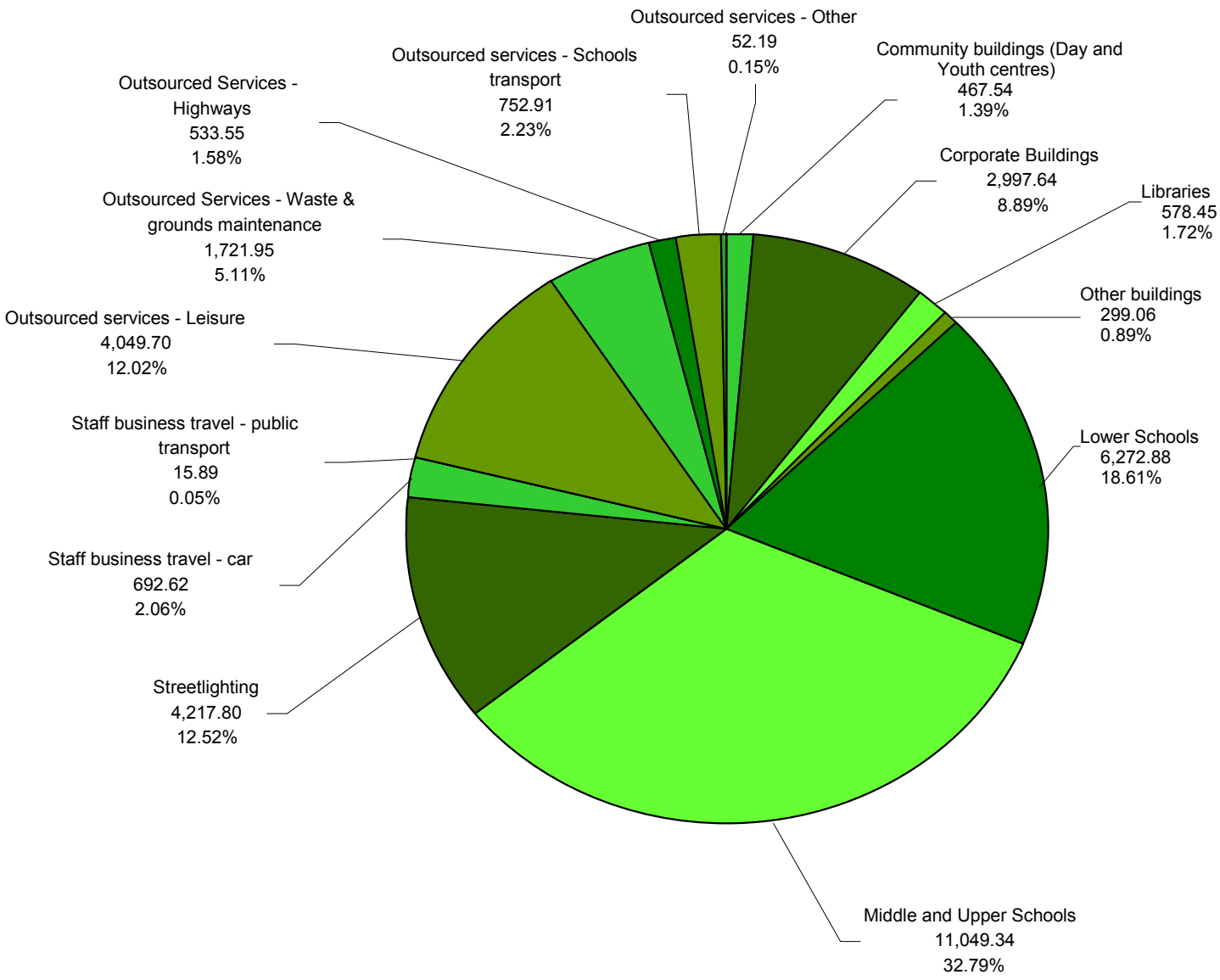
The Council's carbon footprint is based on the energy use and fuel use from the Council's estate, operations and schools. It includes the emissions of the Council's major contractors for waste, leisure, highways and property. It includes staff business mileage for all three legacy authorities and a proportion of business travel on public transport. Figure 1, on the following page, gives a breakdown of the CO_2 emissions of the various different areas included.

Working with the Carbon Trust

Since 1st April 2009 the Council has been actively working to reduce its carbon footprint and in May 2009 were chosen, amidst strong competition, to take part in the Carbon Trust's local authority carbon management programme (LACM). Inclusion in this programme has given the Council access to free technical support and expertise from the Carbon Trust to assist in putting together a Carbon Management Plan (CMP) for the Council. The CMP will manage the delivery of the measures taken to reduce the Council's carbon footprint.

CARBON TRUST

Figure 1: Central Bedfordshire Council's Carbon Footprint (2008/09)



This shows that:

- Currently emissions from schools make up 51% of the carbon footprint and the schools contribution will be significant in developing and implementing the Climate Change Strategy.
- Emissions from outsourced services make up 21% of the Council's carbon footprint. This highlights the importance of embedding sustainable and low carbon procurement principles in to how the Council procures goods and services.
- Leisure Centres make up 12% of the Council's carbon footprint, this is a significant contribution from only six sites (out of a total of 192 including schools).
- Street lighting currently makes up 12% of the Council's carbon footprint, however the switch to more efficient LED streetlights and equipment gives the Council good scope to reduce emissions from this area.

Emissions from Central Bedfordshire Council's Social Housing Stock

Because the Council does not have access to billing information from tenants the CO_2 emissions from Council managed social housing are based on modelling the different types of buildings which make up the Council's housing stock (e.g. terrace houses with cavity wall insulation) against the national figures for household emissions. For this reason, social housing is not included in the accepted carbon footprinting methodology for local authorities, as defined in NI 185: *Percentage CO2 reduction from LA operations.*

By taking the approach on the previous page we estimate that the carbon footprint of our own social housing stock is 23,450 tonnes of CO_2.

23,450 tonnes of CO_2 would fill the Council's Priory House offices 75 times and is equivalent to the emissions caused by a plane flying around the Earth's equator 4,080 times.

Even though this element is not included in the Council's carbon footprint, it does not mean that cutting CO_2 emissions from our social housing stock is not important.

The impact of the considerable work being carried out by the Council in this area is captured and monitored through the Council's requirements to report on NI186: *Per Capita CO_2 reduction from the LA area* and NI187: *Tackling Fuel Poverty*.

The Central Bedfordshire area's carbon emissions

Reducing the carbon footprint of Central Bedfordshire as a whole represents a significant challenge to the Council and there are a number of elements that need to be addressed. In some instances the Council can only seek to influence and raise awareness, for instance through work to help householders and communities to become more energy efficient.

In other areas the Council have more scope for control, for instance through how the duties as part of the planning process are applied or the work to make the Council's own housing stock more energy efficient.

Over the next 20 years Central Bedfordshire faces the additional challenge of significant growth in the area. The Central Bedfordshire Core Strategies plan for a total of 61,150 new homes during the period 2001 to 2031. Of this total 41,700 are required in the Luton/Dunstable/Houghton Regis and Leighton Linslade Growth Area. To support the housing growth 50,000 new jobs will need to be delivered in Bedfordshire and Luton by 2021.

It is inevitable that growth of this magnitude will result in an increase in CO_2 emissions in Central Bedfordshire. However, it also provides the Council with an opportunity to secure more energy efficiency homes, and a larger number of jobs focused around green technologies and innovation, which will allow the area to thrive in a future low carbon economy.

The latest CO_2 emissions data from the Department of Energy & Climate Change (DECC) for Central Bedfordshire shows that in 2007 Central Bedfordshire area was responsible for 1,582 kilo tonnes (kt) of CO_2.

The earliest data for CO_2 emissions relating to Central Bedfordshire dates back to 2005 (see figure 2 below). This is the baseline year with respect to NI186 and the point from which the progress of the LAA target CO_2 reduction target is measured.

The table below gives the area's emissions for 2005, 2006 and 2007. This shows a year on year reduction in line with the general national trend, with per captia emissions seeing a 3.17% reduction in 2007 from the 2005 baseline. It is widely accepted that the ecomonic downturn will reduce emissions further. Initial figures indicate that 2008 saw a 2% reduction in CO_2 emissions nationally – one of the challenges the Council will face will be to facilitate a downwards trend in emissions as the economy comes out of recession.

Figure 2: Central Bedfordshire's CO_2 emissions for the period 2005 to 2007 as measured under NI186: *Per Capita CO_2 reduction from the LA area*

Year	Industry & Commercial (kt of CO_2)	Domestic (kt of CO_2)	Road Transport (kt of CO_2)	Total (kt of CO_2)	Population ('000s, mid-year estimate)	Per Capita Emissions (tonnes)	Change in emissions from 2005 baseline
2005	488	602	460	1,549	246.1	6.3	-
2006	482	613	453	1,548	249.2	6.2	↓ **-1.58%**
2007	476	598	458	1,532	252.1	6.1	↓ **-3.17%**

Working with the Energy Saving Trust

In September 2009, the Council was successful in being selected to take place in the Energy Saving Trust's (EST) One to One Local Authority support programme.

As with the Carbon Trust's LACM programme, the Council faced stiff competition from other local authorities to get a place on this programme. This programme will provide free additional technical support from the EST to focus on putting together an action plan and will be available by May 2010.

The action plan will specifically look at the support and services the Council provides to residents, businesses and partners, and how this can be utilised to drive forward opportunities to help realise carbon reduction and energy efficiency across the Central Bedfordshire area.

3. Preparing for the impacts of a changing climate – an overview

While carbon reduction is an important area of work, the level of historic emissions already means that there will be changes in the climate. The 2003 heat wave, the 2004-06 drought and the 2007 summer floods have shown how climatic events can have a major impact on the natural environment, households, businesses, infrastructure (such as roads, railways, water supply and electricity generation) and vulnerable sections of society, like low-income households and the elderly.

Central Bedfordshire is not and will not be immune from the impacts of the changing climate. The delivery of Council services is affected, directly or indirectly, by climate and weather patterns. This means that climate change will increasingly have a key influence on the area and many of the Council's responsibilities as a local authority.

UK Climate Change Projection 2009 (UK CP09) is the most comprehensive package of climate information available and will be used to fully explore the impacts of a changing climate on the Council and the area. These are based on estimated greenhouse gas emissions scenarios developed by the International Panel on Climate Change (IPCC).

The East of England projections identify three main changes to the climate by the 2020's. These are:

- **Decreases in summer rainfall:** decreases of more than 6% are expected.
- **Increases in winter rainfall:** Increases of more than 6% are expected.
- **Increases in summer and winter temperatures:** Even under low emission scenarios we face an increase in temperature of 1.4°C.
- **More extreme weather events:** More storms, heat waves, droughts, flooding, high speed winds than currently experienced.

The increased frequency of extreme weather events will mean that the Council will in the future have to react to their impacts and provide services to support to residents and businesses in the aftermath of these on an increasingly regular basis.

Figure 3, on the following page, gives an overview of the impacts that the above changes in the climate will have on some of the functions and services that the Council provides[1]. A full assessment of the risk the Council and Central Bedfordshire area faces, including the estimated financial impact, will be carried out as part of the work to address this issue. From this, robust adaptation responses will be put in place to reduce risk and impact, and maximise opportunities.

[1] Adapted and added to from the UKCIP, LGA and I&DEA report *'Climate change and local communities –How prepared are you?'*: http://www.ukcip.org.uk/images/stories/Pub_pdfs/Local_authority.pdf

Figure 3: An overview of the potential impacts of a changing climate on some of the functions and services of the Council.

Service/ Function	Potential impacts of climate change
Property (including schools)	• Increased energy costs through increased use of air conditioning, offset to some extent by a reduction in winter heating costs. • More extreme weather conditions will adversely affect the potential lifespan of the Council's assets. • Wetter winters causing damp, condensation and mould problems. • Higher risk to buildings currently located in floodplain.
Planning	• Higher risk of flooding/erosion of developments in floodplains. • Improved summer climate provides greater potential for outdoor living. • Increase in water demand and disruption to water supply resulting in future serious water stress and the need for large scale water storage.
Housing	• Increased risk of subsidence as soils shrink in hotter drier summers. • Even higher risk to houses in floodplains. • Wetter milder winters increase damp problems.
Emergency Planning	• More extreme weather events resulting in more flooding, flash flooding, storms and summer heat waves.
Transport and Highways	• Increased temperature causing service disruption and heat stress to travelling public. • Increased risk of road subsidence and surface damage. • Increase in rate and length of the growing season of road verges. • Warmer winters with reduced risk of frost, but increased precipitation will lead to more damage to road surfaces.
Social Services and public health issues	• Heat stress to the vulnerable likely to increase significantly. • Higher temperatures likely to increase cases of food poisoning and risk of skin cancer/ sun burn. • Increased excess summer deaths, but a reduction in winter deaths. • Health impacts of damp and mould problems resulting from wetter, milder winters.
Waste and Recycling	• More disruption to waste collection during extreme weather events. • Rubbish will decay more rapidly in higher summer temperatures, potentially resulting in risk of disease and pest infestation. • Higher summer temperatures and higher, more intense, winter rainfall may affect landfill design and operation.
Finance, Legal and HR	• Increased insurance premiums, particularly in areas prone to flooding. • Increased liability cases for weather related incidents. • Loss of productivity in the workplace with new occupational hazards for employees.
Economic Growth	• Opportunities for new businesses specialising in green and low carbon technologies with new job opportunities created. • Warmer climate could mean more local tourism. • Increased storm and flood damage to employment sites.
Countryside Management and Access	• Increased use of green spaces for outdoor leisure, resulting in more pressure on their maintenance. • Loss of green space due to drought and flooding and decreases to native biodiversity as invasive species become resilient.

4. Our vision and targets for the Council and the area

The Council is committed to protecting and enhancing the environment of Central Bedfordshire and to improving the quality of life for all our communities both now and in the future.

By working to minimise the impacts of the Council's activities a contribution to the improvement of the global environment through local action will be made. The Council can only do this by recognising the links that exist between the environment, communities and economy. To make a difference the Council will work across many fronts including:

- Supporting the efficient use of all natural resources, including energy and water.
- Reducing greenhouse gas emissions to mitigate the rate of climate change.
- Taking action to adapt to climate change.
- Reducing the amount of waste produced and minimise its environmental impact by following the waste hierarchy of reduce, reuse, recycle and treat.
- Conserving and enhance the area's biodiversity and habitats.
- Conserving and enhancing the character, diversity and local distinctiveness of Central Bedfordshire landscapes and towns, and provide opportunities for public access and enjoyment of green spaces.
- Supporting action to create a healthy environment, with reduced pollution and contamination.
- Leading the community by demonstrating and promoting environmental good practice.

Central Bedfordshire Council's Climate Change vision

The Council's vision is to deliver a robust, cohesive and actionable response to mitigating and adapting to climate change across the authority and Central Bedfordshire area.

***The Council's strategic goals* will be to:**

- Make the Council more efficient in terms of energy and fuel use, and embed carbon reduction into how the Council operates and the services provided, recognising that this will in turn reduce waste and cut emissions.
- Use the climate change agenda as a positive mechanism to make the lives of Central Bedfordshire's residents better by supporting them to reduce their household energy costs and live more sustainable and active lifestyles.
- Embrace the challenges that growth in the Central Bedfordshire area gives and use this as a catalyst to make homes in the area more energy efficient, help businesses to thrive in a future low carbon economy and ensure that Central Bedfordshire realises fully the benefits of being a more sustainable and greener place to live and work.

- Work in partnership with other organisations and businesses to reduce their own carbon footprints, to jointly benefit from being more efficient, and to also ensure that all are prepared and resilient to the impacts of the changing climate.

This Strategy provides the framework for more detailed delivery plans to be put in place that will lead to a reduction in carbon emission across the area, make the Council more energy and fuel efficient, and ensure that the Council is prepared for the impacts of a changing climate.

Building from solid foundations

This Strategy builds on the good progress made by Central Bedfordshire Council's legacy authorities prior to April 2009:

- **Bedfordshire County Council** achieved ISO14001 certification and through a range of measures reduced the County Council's carbon footprint by 9.1%. This included the operation of a 'invest to save' fund of £360,000, part funded through Salix.
- **Mid Bedfordshire District Council** signed the Nottingham Declaration on Climate Change and put in place a Carbon Reduction Plan. This achieved a 5% reduction in the Council's carbon footprint between 2005 and 2008, primarily through energy efficiency measures and the move to Priory House.
- **South Bedfordshire District Council** was one of only 15 local authorities in the UK to achieve EMAS accreditation and signed the Nottingham Declaration on Climate Change. The Council had taken a range of energy efficiency measures, including upgrades to lighting in the Dunstable District Offices, to reduce its footprint which was first calculated in 2008.

Central Bedfordshire Council's climate change targets

The Council's progress in delivering its vision will be monitored and measured through the following targets.

Cutting the Council's carbon footprint.

The medium and long term targets for cutting the Council's own carbon footprint from the 2008/09 baseline are:

- Achieve a **35%** reduction in the Council's carbon footprint by 2015, and;
- Aim to achieve a **60%** reduction in the Council's carbon footprint by 2020.

These targets are in line with the targets being set nationally by government and are an example of the higher end of local government ambition in relation to carbon reduction. The targets are at a high enough level to counter the predicted impact of energy price increases, whilst at the same time driving forward activity within the Council to reduce emissions and be more energy and fuel efficient.

Cutting Central Bedfordshire emissions.

NI 186: *Per capita reduction in CO_2 emissions in the LA area* is one of the priority action areas in the current Central Bedfordshire Local Area Agreement (LAA) with the following target set:

- a 10.7% reduction in per capita CO_2 emissions from 2005 levels.

This will be reviewed when the current LAA period ends in 2011. The latest data from DECC, for 2007, indicates that per capita CO_2 emissions in Central Bedfordshire have fallen by 3.17%. Initial figures for 2008 indicated that there has been a further 2% reduction nationally.

Preparing for the impacts of a changing climate (climate change adaption)

The Council's progress in this area is monitored annually against the requirements of NI 188: *Adapting to a changing climate*. The Council's target in relation to this is:

- To reach level 4 of NI188 (top level) by 2014.

The Council currently self-assesses itself as being at level 1 of NI 188.

This set of climate change targets clearly demonstrates the Council's ambition to successfully tackle the climate change agenda, and whilst challenging, the measures taken to achieve these will deliver tangible benefits to both the Council and Central Bedfordshire area.

5. Central Bedfordshire Council's Strategic Approach

The Council's strategic approach will be underpinned by the following principles.

- **Learn from and become an example of best practice**
  The Council will use learning from the existing and future best practice of other local authorities to inform the work to deliver this strategy. The Council will also develop awareness campaigns that will be underpinned by a series of well documented case studies to demonstrate our own examples of best practice and innovation.
- **Economy and efficiency will be the key drivers for our climate change work**
  The financial case for action is core to this Strategy and will continue to be so in all future work in this area. Tackling climate change represents an excellent opportunity for the Council and partners to operate more efficiently and realise cost savings.
- **Major climate change projects that are effectively programme managed.**
  The Council's Climate Change Management Board (CCMB) will ensure that there are realistic delivery plans maintained and programme managed. They will also ensure a robust financial case is in place for projects carried out and that efficiencies are demonstrated under the principals of invest to save.
- **Understanding the risks and opportunities from climate change**
  To support all functions of the Council to address climate change we will carry out a full assessment of the impacts and opportunities in their area. This will be as part of a comprehensive programme of impact assessments. Findings and recommendations will be used by CCMB to inform and develop future projects and programmes of work.
- **Considering climate change implications as part of our decision making**
  In order to ensure that the risks and opportunities to the Council from climate change and carbon reduction are fully considered their implications will be assessed and clearly set out as part of the committee report process. These issues will also be highlighted for consideration in other areas of the Council's business, for instance through the commissioning process with our property contractor and as part of the Council's move to more sustainable procurement practices.
- **Being innovative and pushing the boundaries**
  Our approach will be to encourage, engage and support others in reducing their carbon footprints and each year the Council will carry out at least one cutting edge externally focused scheme and one cutting edge internally focused scheme to progress the Council's climate change vision.
- **Learning from, working with and supporting our partners**
  The Council will continue to work in partnership with other organisations and authorities by sharing best practice and working together to maximise opportunities, whether that be through pooling of resources or seeking economies of scale. The focus of this work will be through the Carbon Reduction Working Group.
- **Raise awareness and commitment - get ideas and ownership**
  Every year the Council will host a climate change conference for staff or our external stakeholders (on alternate years) to drive forward the work that contributes to this

agenda, encourage ownership of this issue and to develop innovative ideas for future ground breaking projects to tackle climate change.

- **Regular monitoring of our progress and report performance**
  In addition to the mandatory reporting for NI185, NI186 and NI188, and the performance league table to be produced as part of the CRC Energy efficiency scheme, the Council will produce an annual carbon footprint report, detailing the carbon emissions for the Council and the Central Bedfordshire area. This will detail progress against the targets detailed in this strategy, the measures being taken and the future plans. All key performance indicators relating to climate change are part of the corporate performance suite reported to CMT, Executive and Overview & Scrutiny.
- **Annual review and refresh/updating**
  The Council will regularly review and refresh the Strategy and the Council's climate change targets, ensuring that they are based on the latest information and that the rationale for the targets remains valid.

6. Delivering the Council's vision and targets

The Council's work on climate change falls into three key areas:

- Cutting the Council's carbon footprint;
- Cutting Central Bedfordshire's Carbon emissions; and
- Preparing for the impacts of a changing climate (climate change adaptation).

Actions to deliver on these three core areas will be managed through the following delivery plans:

- Carbon Management Plan (produced with the support of the Carbon Trust)
- Area CO_2 Emissions Reduction Plan (produced with the support of the EST)
- Climate Change Adaptation Plan

Climate change is a cross cutting issue and all directorates of the Council have a role to play. Some areas will have more of a lead role in contributing to the delivery of the Council's vision and targets.

This Strategy focuses primarily on how the Council will mitigate and adapt to climate change. The action taken will contribute to the achievement of the Council's other environmental objectives (see section 4) and conversely the Council's work to progress other core strategies and plans will also support the implementation of this Strategy.

Key elements of the Council's other core plans and strategies that will support the implementation of the Climate Change Strategy and the Council achieving our objectives in relation to this agenda include:

- **Education and Schools:**
  Schools represent a significant challenge as we develop and implement a carbon reduction and climate change strategy. Currently emissions from schools make up 51% of our carbon footprint and just over 1% of the area's carbon footprint. The Council's Educational vision – '*Transforming learning*' makes the following commitments:
  - Each school will be provided with data on its carbon footprint and we will work closely with schools to maximise energy efficiency and the use of renewable technologies alongside other issues such as waste minimisation and recycling, water conservation and biodiversity.
  - Any new schools and major refurbishments will be designed to ensure they meet high standards to minimise environmental impact.
  - We are also developing a strategy on sustainable modes of travel for educational establishments to promote walking, cycling and the use of sustainable transport to school.
  - We will encourage schools to showcase good sustainability practices in energy, water, waste, travel, food and procurement in buildings and grounds to their

pupils, staff and communities. This will place schools at the centre of community action on climate change and promote learning about the environmental features of buildings and also about wider sustainability and environmental issues.

- **Procurement:**

  The Council spends £165 million on external goods and services annually. As shown in the Council's carbon footprint, many of these procurement decisions have the potential to reduce CO_2 emissions and ultimately the Council's carbon footprint.

  Procurement processes are being put in place by the Council that will allow us to drive forward environmental improvements and use our buy power to help shape the market.

  Consideration of the environment is now a mandatory for all quotations and tenders irrespective of value .

  The Council's Corporate Commissioning & Procurement Strategy is committed to sustainable procurement and will adopt the flexible framework as recommended in *Procuring the Future, Sustainable Procurement National Action Plan* produced by the government's Sustainable Procurement Taskforce. More details at: *http://www.defra.gov.uk/sustainable/government/publications/procurement-action-plan/index.htm*

- **Growth (Planning, Housing, Transport and Economic):**
  Central Bedfordshire will see considerable growth over the coming decades. The key priorities for delivering this include:

  - That housing and business growth is sustainable and opportunities for low carbon development are maximised.
  - Development is focused in the most sustainable locations (LDF strategy).
  - Ensuring that development takes place to the highest sustainable standards (LDF policy and guidance.)
  - Achieving a modal shift away from private car use (LDF/LTP).
  - Achieving an effective, efficient and sustainable transport system (LTP/transport projects).
  - Providing energy-efficient homes (Housing Strategy/ existing and new stock grants/planning approach).
  - The Green Infrastructure Plan and Biodiversity Strategy will deliver the Council's response to protecting and maintaining Central Bedfordshire's unique environment and biodiversity from the impacts of a changing climate.
  - Central Bedfordshire is well placed to take advantage of the growing low carbon and green economy, with centres of excellence in research and development, such as Cranfield University, and the development of new technologies, such as Ultra Low Carbon Vehicles, already in the area.
  - Further investigation will be undertaken to identify new opportunities and what further infrastructure/ support is needed to ensure that Central Bedfordshire is well placed to take advantage of and thrive in the emerging low carbon economy.

- **Property, Facilities Management, ICT and the Medium-term Accommodation Strategy**
  Most of the opportunities for the Council to reduce its own carbon footprint will come from how we operate, maintain and develop the Council's estate. This includes:
  - Embed effective energy management in to how the Council operates its buildings and estate.
  - Understanding the principle of using assets efficiently in relation to reducing carbon emissions could help build the case for ceasing the use of large inefficient assets such as old- fashioned day centres.
  - Using benchmark performance information to identify and invest in those sites with the greatest potential for cost effective savings, particularly in relation to energy use. This will be supported by continuing improvements in energy procurement, measurement technology, training and design advice.
  - Additionally the ICT team are also embedding effective energy management and carbon reduction as part of the development of our ICT infrastructure, this includes a range of measure such as server virtualisation and the move to thin clients.
  - Investing in renewable energy infrastructure as part of the Council's development of new building projects.

- **Housing**
  The Council's new Renewal Policy includes the provision of Affordable Warmth Assistance to tackle fuel poverty. This assistance is intended to help those in fuel poverty who cannot be assisted by other funding schemes, such as Warm Front. It also includes:
  - Continuing to promote the Energy Savings Trust Advice Centre Service, in particular the free phone Helpline, for all energy conservation enquiries.
  - Initiating a pro-active insulation promotion during 2010/11 with a locally based insulation contractor.
  - Utilizing EERA funding to tackle fuel poverty by replacing or improving heating systems for households in fuel poverty. Further funding may enable the support of "off gas", rural households looking to switch to a more efficient heating system, including use of Renewable technology.
  - As landlord to more than 5,200 households, most of these have now been insulated and most (99%) have had double glazing installed. An insulation programme of £41,000 will provide cavity wall insulation and loft insulation "top ups". A glazing programme of £84,000 will help address the final few single glazed properties.
  - For 2010/11 a budget of £1,276,000 will be provided for upgrading of heating systems allowing an additional 400 properties to benefit from high efficiency condensing boilers.
  - At least one of our Sheltered Housing schemes will benefit from an upgraded heating system with an investment of £167,000.

- Consideration of the installation of ground source heat pumps to Council owned dwellings in off gas rural locations. Work is ongoing to investigate funding opportunities to examine the cost effectiveness of this option.

- **Emergency Planning**
  The Emergency Planning team's work with our public sector partners, through the Local Resilience Forum, is key to ensuring that Central Bedfordshire is well prepared and resilient to the impacts of extreme weather events and the increased frequency of these in the future.

  The Local Resilience Forum maintains a community risk register that prioritises contingency planning like the risk of flooding, heat wave and drought. Work in this area is about responding to the impacts rather than mitigating them. Over the next year the Local Resilience Forum will be exploring how the changing climate will impact on the area and how the planned responses need to be modified to account for its impacts.

- **Highways & Street Lighting**
  Working closely with the Council's highways service provider, Amey, the implementation of the Council's Street Lighting Strategy will see the street lighting infrastructure across Central Bedfordshire replaced over the next four years with more efficient LED lighting and energy efficient control gear.

  In addition to this trials are also being conducted with other innovative technologies. An example of this is the use of a new surfacing material from Aggregate Industries that used modified waste vegetable oils instead of bituminous materials. This will have a carbon reduction benefit, plus many other environmental benefits including a reduction of aromatic hydrocarbons.

- **Waste**
  In 2008 waste was responsible for the creation of 4% of the UK total of carbon emissions but 43% or the UK methane emissions. Waste Services activities are influenced by a number of drivers which are either driven or influenced by the carbon agenda.

  - The EU Landfill Directive 1999 requires the UK to reduce the amount of biodegradable municipal waste (BMW) that it sends to landfill with a view to reducing the amount of green house gases from this source. This legislation introduced two key drivers for LAs:

    1. The Landfill Allowance Trading Scheme where each authority has yearly allowances for BMW sent to landfill. The allowances are progressively lower each year with a trading scheme and a potential fine for landfilling more than allocated.

    2. The Landfill Tax Escalator which dictates that landfill tax will increase by £8 per tonne per year to £72 in 2013. There is also now the possibility that is not necessarily the ceiling cost and could increase by degrees thereafter.

  - The three waste National Indicators related to waste reduction and recycling in order to minimise waste to landfill are the Residual Household Waste per Household; Percentage Household Waste Reused, Recycled or Composted; and

Percentage Municipal Waste to landfill, the latter of which also features in LAA2. These indicators are used to performance manage the Council's work in this area.

- A co-ordinated communications campaign titled 'Recycle Now' has been conducted in the area for a number of years to engage with residents about waste issues and ultimately affect their behaviour to reduce, reuse and recycle their waste. Activities include schools education, doorstepping, advertising, events and PR.
- We are also aware of the impact of the transportation of waste in terms of CO_2 emissions. When procuring services we take in to consideration the location of any bulking or treatment facilities as part of the assessment criteria. We also plan and manage our waste and recycling collections in such a way as to minimise mileage.

- **Bedfordshire Energy & Recycling Project (BEaR)**
  The BEaR Project is a Central Bedfordshire Council project set up to deliver an alternative waste disposal solution to landfill, a practice that releases large amounts of methane (a potent GHG). The Project is aiming to deliver a technical solution that creates energy as a by-product in the form of electricity and/or heat.

  Energy production from the waste can on the whole be considered renewable thereby making it eligible in some cases for Renewables Obligation Certificates. Energy production would also offset the requirement for the use of fossil fuels.

  The BEaR Project is also looking at additional infrastructure requirements of the authority such as Household Waste Recycling Centres and a Waste Transfer Station to assist in the delivery of the authority's waste strategy, reduce the disposal of waste to landfill, increase recycling and reduce.

7. Governance and ownership of the Climate Change Strategy

The development of the Council's Climate Change Strategy, along with the identification, assessment and development of projects is being overseen by the Council's Climate Change Management Board (CCMB). This group is made up of key managers with specific expertise related to this agenda and/or responsibility for those core areas that will deliver this Strategy.

CCMB will continue to lead on and oversee the implementation of the Climate Change Strategy and champion the necessary actions to embed climate change and good carbon management across how the Council operates. CCMB will:

- Champion and provide leadership on climate change.
- Set and review the strategic direction and targets.
- Own the scope of the Climate Change Strategy delivery plan and prioritise projects and measures.
- Monitor progress towards objectives and targets.
- Remove obstacles to the successful completion of climate change projects.
- Review and champion plans for financial provision.
- Ensure that there is a framework to coordinate projects that deliver the objectives of the Climate Change Strategy.

The relevant Portfolio Holder for Sustainable Development will be the member champion for climate change and provide the focal point for member involvement in the Strategy.

Financing our work on climate change

Like all other local authorities in the UK, the current economic climate presents us with an additional challenge when it comes to fulfilling our potential to successfully address climate change, reduce carbon emissions and be more energy efficient.

In the short term we will ensure that carbon reduction opportunities are maximised in as cost effective way as possible.

The following financing principles will underpin the implementation of this Strategy:

- Make best use of external funding streams, including Salix, The Low Carbon Buildings Programme, energy performance contracting or profit share agreements and other similar funding mechanisms.
- Prioritise spend on those measures which give a high return (both financial and carbon reduction) on investment, such as awareness raising and AMR's.
- Follow the principles of invest to save, also give consideration to measures based upon an 'invest to avoid future cost increases' mechanism.

- Ensure that whole life costs and energy efficiency measures are key considerations when the Council commission's work on its property and schools, and investments in other capital funded projects.
- Ensure that the links between operating more efficiently, carbon reduction and energy efficiency are clarified, so that the value (both financial and carbon reduction) of any measures taken are assessed and captured.

The following projects, which already have funding allocated, will provide the carbon reduction in the early stages of the implementation of this strategy.

Project	Deliverables
Street Lighting Strategy	It is estimated this will cut the Council's carbon footprint by up to 2% once fully implemented and could save approximately £198,600 per year in energy costs (based on current prices).
Medium Term Accommodation Strategy	This will reduce the Council's carbon footprint by 2.4% (915 tonnes of CO_2) and save an estimated £122,000 in energy costs.
Combined Heat and Power (CHP) plant at Saxon Leisure Centre	This will reduce the Council's carbon footprint by 0.5% and save up to £12,000 per year in energy costs. This also gives the Council a model for how carbon reduction measures can be taken at no capital cost.
Staff awareness/ green champions club	This has the potential to reduce energy use by up to 5%, potentially saving £170,000 per year in energy costs if implemented at all sites and schools.
Improvement works already commissioned since April 2009	These works include boiler replacements and double glazing and will reduce carbon emissions by approximately 17 tonnes.
AMR (Automated Meter Reading)	This has the potential to reduce emissions by up to 5% and reduce energy costs by up to £170,000 per year if installed at all sites and schools – and facilities and site agents are trained to act on the information being collected (subject to an invest to save fund bid). This is also counted as an early action measure in the CRC energy efficiency scheme and could lead to an additional reward payment after the first year of the scheme.
ICT measures	This includes a range of measures such as Server Virtualisation, LCD monitors, thin clients and enabling the *Energywise* setting on Cisco phones. It is estimated that these measures could save £42,000 in reduced energy costs, cutting the Council's carbon footprint by 0.9%.

Financing opportunities which will be explored include:

- Maximising the opportunity of additional funding from business through carbon compensation schemes currently being developed by organisations such as the Pure Trust (http://www.puretrust.org.uk/)

- Explore the feasibility of entering into Energy Performance Contracting agreements. This is based on around an agreement with an Energy Services Company (ESCo) through which they implement energy saving measures on the Council's estate at no capital cost to the Council. The ESCo then recoups their investment over a set period of time from the energy savings made.
- Make use of the 50% Salix funding to set up a ring fenced 'invest to save' fund under the Local Authority Energy Fund (LAEF) – this would require the Council to provide 50% match funding.
- If successful in the CRC energy efficiency scheme, use any additional income gained through the reward element of the recycling payment for carbon reduction projects.
- Seek to get better economies of scale through joint procurement of energy efficient technologies with partner organisations.

Working with partners to tackle climate change

Taking action to cut the Council's own carbon footprint demonstrates clear leadership on this issue, but to make an effective impact on an area wide basis we will also need to work effectively with our partners to delivering on carbon reduction and climate change adaptation in the Central Bedfordshire area.

The Central Bedfordshire Carbon Reduction Working Group (CRed WG) brings together a range of key organisations to act on and oversee the commitments made in the Local Area Agreement in relation to climate change and specifically reducing our area's carbon emissions.

The CRed WG primarily focuses on bringing forward a range of projects that deliver tangible carbon savings and capturing the carbon savings from organisation's own activities. This is overseen by the Environment and Economy sub-group of the Local Strategic Partnership, which in turn reports back on progress in this area to the Central Bedfordshire Local Strategic Partnership – *Central Bedfordshire Together*.

In terms of preparing for the impacts of climate change the Bedfordshire and Luton Local Resilience Forum (BLLRF) brings together the emergency services, local authorities, National Health Service and other agencies to respond to any major emergency in Bedfordshire and Luton. This includes those events that will become more frequent or extreme in the future, such as flooding, heat waves and storms.

8. Next steps

This Climate Change Strategy sets the context for action, identifies our starting point, and clarifies out vision and goals for tackling this important agenda.

Whilst work on climate change will continue over the coming years, the next steps for the Council over the coming year (2010/11) that will begin to implement this Strategy include:

1. Completion of the Carbon Management Plan with support from the Carbon Trust.
2. Calculation and publication of the Council's carbon footprint for 2009/10 and progress of measures taken so far.
3. Hold an annual public facing initiative to encourage energy efficiency and carbon reduction.
4. Host an annual climate change conference to raise awareness, consult and gather ideas and opinion.
5. Implementation of the Council's Street lighting Strategy and Medium Term Accommodation Strategy.
6. Support communities to reduce energy use and cut carbon.
7. Carry out a programme of 'climate impact' assessments for all Council functions
8. Supporting the Council's staff to be greener through a Staff Green Champions Club
9. Comply with the Government's Carbon Reduction Commitment and embed robust energy management arrangements as part of our facilities management.
10. Support schools and those organisations who provide services on behalf of the Council to better understand their carbon footprints and the action they can take to reduce them.