Bedfordshire
county council

Climate Change Strategy and Action Plan

December 2007

Bedfordshire County Council Climate Change Strategy and Action Plan

Contents

1 Background

Climate Change is the most serious environmental issue facing the world today. It is likely to have significant impacts over the coming decades, giving rise to major changes in weather patterns, including extreme events such as storms, flooding, drought and heatwaves and changes in rainfall and temperature.

The UK is responsible for 2% of global carbon emissions but on average each person has a carbon footprint of 7.6 tonnes, over 7 times that of people living in developing countries such as India and China. It is now more important than ever to act at a local level; our continuing lifestyle patterns will have a direct impact on the quality of life our children and grandchildren will face in the future.

Bedfordshire County Council has developed this Strategy to take a lead on action to tackle climate change in Bedfordshire – the Council firmly believes that climate change is not something to be ignored and that we all have a role to play in taking action.

A range of key strategies and objectives have been set to address climate change within the Council. These are consistent with the targets set at a Global, National, Regional and Local Authority level (see Appendix 1).

From 2008 local authorities' performance will be measured against:-

- **a percentage reduction in Carbon Dioxide (CO2) emissions from their own operations and services;**
- **reductions in emissions from the wider community;**
- **their progress in making the local area climate resilient;**
- **energy use in buildings as part of the Carbon Reduction Commitment***

The Council has already begun to reduce its own carbon emissions in a range of ways across the many services it provides. These include:

- Procuring green electricity;
- Financing renewable energy projects;
- Offering interest free loans for energy saving measures;
- Recycling and composting waste;
- Helping producers to market local food;
- Working with schools to produce travel plans;
- Providing new public transport provision.

*Local Authorities who use more that 6000 megawatt hours of electricity on half-hourly meters will be required to 'cap and trade' their emissions. See Section 7.

2 Implications for County Council Services

The impacts of climate change on Bedfordshire County Council are likely to be significant. A full risk assessment has still to be undertaken and will fully identify the impacts of climate change on the Council and its range of responsibilities. Some of the main implications will occur in the following areas

Leadership

- Greater public awareness of climate change increasing expectation of the Council as a community leader;
- Greater monitoring and evaluation of the Council's progress in tackling climate change;

Health

- Higher temperatures likely to increase cases of food poisoning, heatstroke, increased respiratory disease and sunburn placing vulnerable people at greater risk;

Buildings

- Flooding, storms and higher temperatures may necessitate more frequent maintenance of buildings;

Highways

- Increased maintenance due to summer tarmac melt, road subsidence and surface splitting;
- Draining capacity of highways stretched due to increased winter precipitation;

Legal/Cost

- Increased liability cases against the council for weather related incidents;
- Financial implication of new legislation e.g. carbon reduction commitment.

Appendix 2 outlines the risk climate change may have on each of the Council's service areas in greater detail.

3 Our Commitment

In June 2007, Bedfordshire County Council set a long term corporate objective:

"To reduce the Council's carbon footprint and lead the County's response to climate change."

The Council recognises that in order to encourage action, it needs to lead by example and ensure that its own house is in order. This strategy focuses on the first aspect of this commitment - reducing the Council's carbon footprint. It sets out objectives, targets and a programme of action for mitigating and adapting to climate change.

In the longer term the Council intends to lead a Countywide response to climate change and is working with partners to initiate a coordinated approach. The Sustainable Community Strategy picks up on the Government's Climate Change Bill by committing the County to a 20% reduction in CO_2 emissions by 2010 (from 1990 levels*) including an objective to develop a climate change action plan for Bedfordshire.

* In line with the national target proposed in the UK Government's Climate Change Bill – see Appendix 1

4 Our Carbon Footprint

"A carbon footprint is a measure of the total amount of carbon dioxide emissions that are directly and indirectly caused by a human activity, or accumulated over the life stages of a product."

How we calculated our carbon footprint

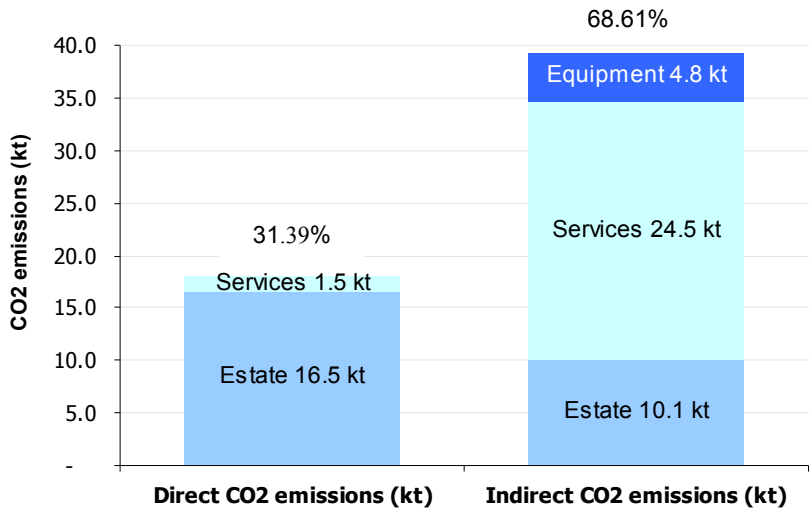
Our carbon footprint calculations were based on 2005/6 statistics and include both *direct* and *indirect* emissions.

Direct emissions come from heating buildings and the use of vehicles.

Indirect emissions include those used in the production of the electricity we consume or the goods and services we purchase, e.g. consumables such as stationery and I.T. equipment, and services such as waste disposal, catering and schools transport.

We have taken into account our estate activities (property and buildings) and our services (highways maintenance, schools and waste disposal) giving us one of the most comprehensive calculations of a Carbon Footprint for a local authority in the UK.*

The largest share of our carbon footprint is taken up by indirect emissions, over which the Council has limited control. The split between the emissions of estates and services is roughly equal.



* 2005/06 staff commuting data was not available for calculation in this footprint but will be included in future updates

The table below identifies the main carbon "hotspots" in Bedfordshire County Council, these are activities or commodities that give rise to more than 1kt of CO_2 emissions. It should be noted that schools are responsible for 40% of the carbon footprint (largely from their heating and electricity consumption).

Commodity	% of total carbon footprint
Fuels for schools	26
Electricity for schools	14
Electricity for streetlights	7
Social services for adults and older people	6
Waste disposal	3
Public transport	3
Equipment for children's services	3
Road maintenance	3
School transport	3
Building services	3
Transport for Special Education Needs	2
Fuels for social services	2

The remaining carbon footprint is made up of a range of goods and services including building construction and maintenance, office furniture and recycling.

How do we compare against others?

It is difficult to benchmark Bedfordshire's performance against other Local Authorities as carbon footprinting is a very recent science and no standard methodology has been established for measuring emissions. However, in an attempt to do this we tracked our performance using the Sustainable Energy Benchmark and Toolkit*, modifying the framework to include adaptation and wider sources of emissions.

- Most Local Authorities have so far focused on:-
  - direct CO_2 emissions
  - monitoring the carbon footprint of the population

- Bedfordshire County Council has taken a groundbreaking approach by focusing on:-
  - carbon footprinting its own estates and services
  - including indirect as well as direct CO_2 emissions

Key findings reveal:

	Bedfordshire County Council	UK Local Government	Beds CC as % of Local Government
Grams CO_2 per £ spent	94.4	171	55

- The Council has a Carbon footprint 55% of the 'intensity' of an average of all Local Authorities, where intensity is based on a measurement of emissions per pound spent
- The Council's direct emissions are lower than average

* The seven 'sustainable energy' beacon authorities published an interactive toolkit to help councils evaluate their own performance and provide guidance for improvement.

- Indirect emissions such as road transport, health and social work, construction, and manufactured goods appear to be significantly higher than average. The probable reason for this difference is a higher rate of outsourcing of services; improvements in the Council's procurement practices may help to overcome this.

In some areas Bedfordshire County Council is performing well, particularly on aspects of carbon management of its properties and green electricity purchasing. However the Council's performance compares less well in relation to having an overarching climate change strategy and in accounting for climate change in the procurement of goods and services.

5 Our Vision for the Council

Our vision is to deliver a robust, cohesive and actionable response to mitigating and adapting to climate change across the authority. It will include estates, staff practices and service provision in the short to medium term, and develop excellent practice over time, especially in relation to procurement.

Key Strategies

- To lead by example in responding to climate change by mitigating greenhouse gas emissions and adapting to probable impacts across all of the Council's services and in the management of our estate.

- To work towards achieving a zero carbon status for the operation of the Council's services and estate.

- To work towards making the Council's services and estate resilient to all probable climate change risks and to reduce risks to the wider community.

- To make every member of staff aware that they have a role in responding to climate change.

- To act in partnership with other organisations in tackling carbon emissions and adapting to climate change impacts.

- To communicate to the public what the Council is doing in response to climate change and how the public can become involved and take action.

Climate Change Objectives

On current baseline* to achieve a

- 15% reduction in CO_2 emissions by March 2009
- 20% reduction in CO_2 emissions by March 2010.
- 30% reduction in CO_2 emissions by 2012.
- 40% reduction in CO_2 emissions by 2015.
- Zero carbon by March 2037.

The following milestones will help the Council to meet its Climate Change Objectives:

- To have in place comprehensive climate change monitoring and management systems by March 2009.
- To have established a methane emissions baseline by 2009 with clear targets for methane reduction.
- To have 85% of services or properties assessed for risk by 2010 and then 70% of services or properties to have implemented adaptation measures by 2012.

6 How We Will Deliver

Ten key priority action areas have been identified to support the delivery of these key strategic climate change objectives. These are reflected in the Action Plan in Appendix 3.

Cross cutting action areas

1. Governance and embedding
2. Staff awareness raising
3. Public behaviour change

Specific action areas

4. Procurement
5. Energy Management and Property
6. Growth and Economic Development
7. Waste
8. Schools
9. Access, Mobility and Travel
10. Green Infrastructure and Countryside Management

* 2005/06 financial year based on the statistics used to calculate the Council's carbon footprint

7 Cost of Delivery

Cost of delivery of climate change initiatives will be largely supported within existing budgets.

Corporate Sustainability Steering Group* will identify the need for any further commitments in terms of resources and actions. These will be presented to the Council's Corporate Management Board for agreement on a case by case basis, working to an 'invest to save' principle. It is worth noting, that failure to take action may result in greater costs for services and communities in the future. Every endeavour will be taken to capitalise on funding opportunities and work in partnership with other organisations.

Under the proposed Carbon Reduction Commitment, Local Authorities who use more than 6000 megawatt hours of electricity on half-hourly meters will be required to 'cap and trade' their energy emissions through purchasing carbon credits which are refunded at the end of the calendar year based on meeting emissions reduction targets. The scheme is likely to commence in January 2010 based on 2008 consumption and the Council could incur a one off revenue cost of up to £0.5million in the financial year 2009/10. This will depend on which buildings are included, whether streetlights are included and the set price of carbon in the opening phase of the scheme. In subsequent years purchasing credits will be largely offset by the refund of the previous years purchase.

Dealing with climate change need not incur prohibitive expense if it is carefully planned into the design and day to day activities of services; there may also be significant efficiency increases and cost savings.

The Climate Change Strategy operates on a long term perspective but it also includes targets and actions to be achieved both in the short and medium term. The strategy aims to be a flexible document reviewable on an annual basis.

8 How should we respond?

There are two recognised responses to climate change as followed:

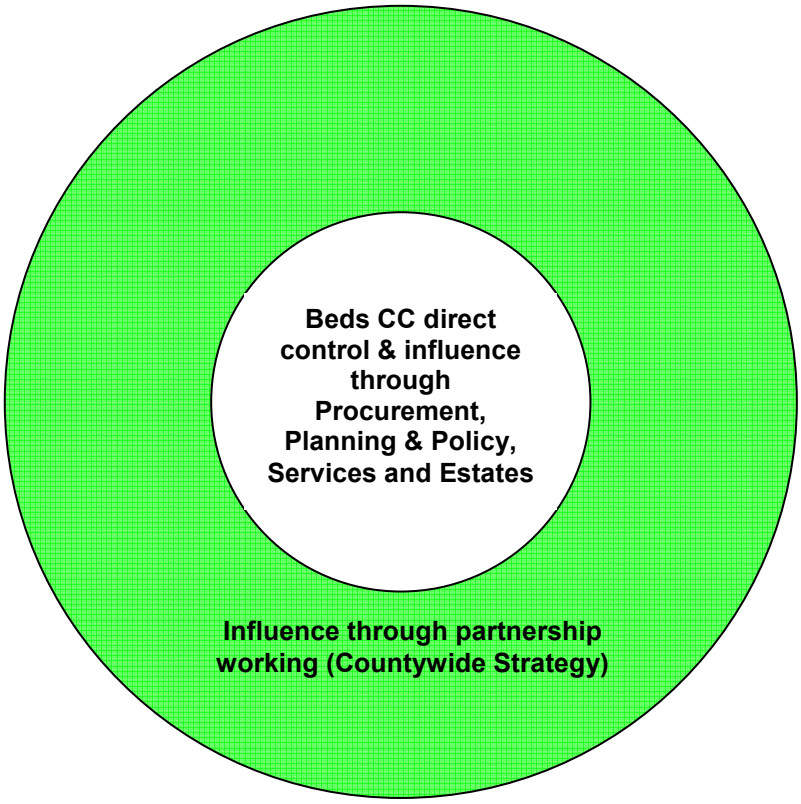
Climate change mitigation attempts to reduce the impact of climate change by reducing emissions of greenhouse gases. *For a local authority like Bedfordshire County Council the greatest volume of emissions are carbon dioxide (CO_2), however methane emitted through landfill is also important because it has a global warming potential 21 times that of CO_2.*

Climate change adaptation assumes that climate change will happen, and considers ways in which we change the way we live, build houses and plan infrastructure and green spaces. *It involves reducing flood risk, increasing shading, making buildings and infrastructure more resilient to weather extremes, protecting vulnerable people and changing the way we manage our habitats and biodiversity.*

* Membership is listed at Appendix 4

9 Where should we focus our attention?

Actions should initially be concentrated on where the Council can have direct impact e.g. estates and services before extending to its wider sphere of influence through the Countywide Partnership.



The central circle illustrates the Council's main sphere of influence, whereas a future Countywide Strategy will cover a wider scope.

10 What will have the biggest impact?

The Council's biggest carbon "hotspot" is energy use. The Council has already switched to a green electricity tariff for County Hall (incorporated into the 05/06 footprint). Since that time the Council has also switched to a green tariff for its streetlights and Upper Schools. This has been largely cost neutral because green electricity is exempt from the Climate Change Levy*. By switching the remainder of electricity to a green tariff, the Council could reduce its carbon footprint by a further 12%. However this would involve significant cost increases for some schools which are exempt from the Climate Change Levy.

* The Climate Change Levy is a tax on the use of non renewable energy in industry, commerce and the public sector. The aim of the levy is to encourage users to improve energy efficiency and reduce emissions of greenhouse gases. Foundation schools are exempt from the Climate Change Levy.

The table below shows the percentage reduction that could be achieved through a range of different measures and have been used to inform the activities of the action plan in Appendix 3.

Action	% reduction of total carbon footprint
Purchase all electricity from renewable sources	**- a further 12%**
Streetlights only through renewables	**-6.2%**
Install energy efficiency measures e.g. boilers, controls, better insulation etc.	**-6.1%**
Buy 'green' products with 20% less embodied energy	**-1.7%**
Change heating patterns (turn down/switch off)	**-1.5%**
Change in staff behaviour (turn off equipment etc)	**-1.5%**
Buy 20% more efficient electrical appliances	**-1.5%**
20% more efficient street lighting e.g. dimming where appropriate	**-1.4%**
Switch to 100% alternatively fuelled vehicles	**-0.8%**
Avoid 10% of business trips	**-0.5%**
10% less / more efficient driving	**-0.1%**
Switch to 5% alternatively fuelled vehicles	**-0.04%**
Reduce paper use by 50% (+10% ICT use assumed)	**0.05%**

11 Conclusion

The actions proposed in this Strategy are intended to benefit Bedfordshire's environment and the people that live and work in it.

The Council aims to set the standard for future action to alleviate the effects of climate change, to raise awareness amongst local communities and declare its intention to work in partnership with others to develop a more sustainable future for the County.

This strategy will be an important working document, setting out policies for good practice and affirming the Council's Commitment to tackling Climate Change.

12 Next Steps

Countywide Climate Change Strategy

The County Council has an ambition to work with partners to develop a Countywide Climate Change Strategy. The Countywide Partnership has made a commitment to tackling carbon emissions through the Sustainable Community Strategy. There is scope to adopt a formal Partnership objective, supported by the inclusion of a strong climate change mitigation and adaptation framework, into the Local Area Agreement. This will affect the delivery of services across the County, and through a range of partners, the way that development is taken forward to allow a more direct influence over the practices of people and organisations throughout the County.

Appendix 1 - Targets and Drivers

	Driver	What it means
Global	Kyoto & Bali	*12.5% reduction in greenhouse gas emissions by 2008-2012. The "Bali roadmap" negotiating process is aimed at securing a globally binding deal at the 2009 UN summit.
National	Climate change bill	*The Government has set reduction targets of 20% by 2010; 60% by 2050; to achieve 'real progress' (26-32%) by 2020. It also proposes five-year carbon budgets for binding limits on CO_2 emissions.
	Carbon Reduction Commitment (CRC)	Local authorities who use more than 6,000 megawatt hours of electricity on half-hourly meters will be required to 'cap and trade' emissions. Scheme likely to commence in January 2010, based on 2008 consumption.
	Children's Plan	Sets an ambition for all new school buildings to be zero carbon by 2016
Regional	Integrated Regional Strategy for the E of England	Identifies climate change as a crucial issue in relation to housing supply, growth and sustainability. It sets a high level objective to reduce consumption of fossil fuels.
	Regional Economic Strategy	*Sets a target to reduce CO_2 by 20% by 2010. Targets achieved through measures such as energy efficiency and renewables.
	Sustainable Development Framework	Provides a central reference point for ensuring regional and local strategies are consistent with the principles of sustainable development.
	Climate Action Plan East (CAPE)	EEDA are working with representatives of organisations in the east of England region to put in place an Action Plan to drive forward mitigation and adaptation measures.
Local	Bedfordshire Sustainable Community Strategy	One of the desired outcomes of the strategy is a commitment to create high quality communities and places where people will want to live, work and invest; environmental assets and natural resources which are protected, enhanced and managed in a sustainable way; and environmental action which helps reduce the causes and impacts of climate change
Local Government Specific	UK Climate Change Programme 2006	Highlights that local authorities are 'uniquely placed to provide vision and leadership to local communities; raise awareness and help change behaviours.
	Local Government White Paper Strong and Prosperous Communities	Provides local government with opportunities to drive action on climate change mitigation and adaptation by leading by example through its own practices and providing leadership and coordination through innovative partnership working.
	National Performance indicators	From 2008, local authorities' performance will be measured against a range of new indicators. The proposed indicators include: **NI 185:** CO_2 reduction from local authority operations **NI 186:** Per capita reduction in CO_2 emissions in the LA area **NI 188:** Adapting to climate change

***** Targets are based on a 1990 baseline. To date Bedfordshire County Council has already reduced its own emissions by 14% by purchasing green electricity and installing energy saving measures.

Appendix 2 - Implications for County Council Services

Assistant Chief Executive
i. Greater public awareness and expectation on the Council's leadership in relation to climate change. ii. Greater scrutiny, monitoring and evaluation of the Council's impact and progress in tackling climate change.

Customer Engagement & Corporate Services
i. Flooding, storms and higher temperatures may necessitate more frequent maintenance of buildings, new technology (e.g. lighting and temperature control). ii. Greater need for whole life costing of building materials, equipment and facilities.

Environment
i. Higher risk of flooding/erosion will undermine susceptible developments in floodplains. ii. Housing growth means increased demand for land, energy and water resources. iii. Disruption of transport infrastructure. iv. Hotter drier summers could increase pressure on water resources. v. Economic development constrained in flood-risk areas. vi. Indirect costs due to disruption of transport infrastructure and other services. vii. Changes in local markets e.g. tourism, agriculture and demand for new products and services. viii. More traffic disruption due to extreme weather, particularly flooding and extreme temperatures. ix. Increased rainfall intensity affects embankments and bridge piers and washing more debris into gullies. x. Increased rate of growth and length of growing season on road verges. xi. Increased summer tarmac melt, road subsidence and surface splitting due to drying of soils; leading to increased maintenance costs to mitigate the potential increase in road traffic accidents. xii. Drainage capacity of highways stretched due to increased winter precipitation. xiii. Rubbish will decay more rapidly in warmer weather, leading to increased waste collection. xiv. Higher summer temperatures and more intense rainfall may affect landfill design and operation.

Children's Services
i. Children vulnerable to flooding and health impacts of climate change (e.g. heat waves). ii. Higher rates of asthma due to increased air pollution and dust in drier summers. iii. Potential for integrating awareness of climate change within school projects. iv. Increased demand on schools to reduce energy use.

Community Services
i. Increased risk of subsidence in buildings as soils shrink in hotter, drier summers. ii. Increased damp in properties. iii. Housing shortages due to flooding of low-lying areas. iv. Impacts on vulnerable elderly people from flooding and heat waves. v. Higher temperatures likely to increase cases of food poisoning. vi. Historical documents may be affected by hotter/drier summers and wetter/damper winters. vii. Woodlands affected by increased drought conditions and storm damage viii. Potential impacts of flooding on cultural and heritage centres. ix. Safety concerns due to flooding

x. Increased risk of fire in woodland during dry spells.

HR, Finance, Civil Contingency
i. Increased liability cases against the Council e.g. from falling trees and weather-related incidents. ii. Uninsurable or raised insurance costs e.g. because of flooding. iii. Financial implications of new legislation e.g. Carbon Reduction Commitment. iv. Changes required to staff behaviour. v. Increased emergencies as a result of extreme weather conditions.

Appendix 3 - Action Plan

Key Priority One

Governance and Embedding

The Climate Change Strategy will help the Council to demonstrate it's role as an exemplar in the community by ensuring effective, joined up practice across estate, staff practice and service provision within the short and medium term, moving towards excellent practice in the longer term, especially in the procurement of goods, services and contracting. The first steps in taking forward the Strategy are to put in place governance structures and embed climate change into the everyday core business of the Council.

Objectives and key outcomes

Objectives	Outcomes
Provide leadership to coordinate, communicate, deliver, monitor and report upon the Council's Climate Change Strategy and action plan by:	
• Ensuring Corporate Leadership;	• Corporate Sustainability Steering Group (CSSG) adapted to include delivery of the climate change strategy and action plan. • CSSG and Countywide Partnership Manager assist the development of a Climate Change Strategy for Bedfordshire • Service Heads take ownership of Climate Change actions and integrate into 2008/09 service plans.
• Developing and supporting a team of skilled and knowledgeable staff;	• Sustainability Team restored to 3 staff • Training for service staff in areas where knowledge gaps are identified
• Putting resources in place;	• Service areas allocate budget and staff time to implement action plan.
• Reducing vulnerability to impacts of climate change.	• Undertake full risk assessments for the Council estate and services, update and publish these on an annual basis. • Put in place adaptation plans for key areas of risk and make the most of opportunities to improve resilience. • Undertake a risk assessment of climate change impacts across the county to inform the Countywide strategy.
• Embedding climate change objectives across the Council; • Providing corporate collection, interpretation and dissemination of climate change information;	• Climate change incorporated in staff induction. • Climate change incorporated in business plans. • Communicate key messages through staff training and regular news bulletins.

• Developing and using mechanisms to monitor and report progress;	• Annual report on progress against the Action Plan commencing March 2009. Review and update strategy in 2009. • 6 monthly review by Environment OSC

Existing Good Practice

Environmental Management System

Since 2003 the County Council has had an Environmental Management System (EMS) certified to the internationally recognised ISO14001 standard. The areas in scope include Environment (including Highways, Waste and Planning Development Control), Trading Standards & Registration, Bedfordshire & Luton Archives & Records and Countryside Access. The EMS assesses the environmental impacts in each area, including those aspects that contribute to greenhouse gas emissions. Where significant impacts are identified, mitigating action plans are drawn up, implemented and monitored to ensure that targets are achieved.

Key Priority Two

Raise Awareness of Staff

Staff have an enormous impact over the Council's carbon footprint via their own actions and their influence on others. It is crucial that they are informed, motivated and proactive about seeking ways to address climate change in all aspects of their work.

A good climate change communication strategy together with themed weeks and road shows and the distribution of a carbon calculator will encourage both work-based and personal carbon reduction actions. The biggest carbon savings across the Council can be made from reducing electricity consumption and there will be strong leadership for switching off equipment when it is not in use.

The Council is looking to develop new and flexible work patterns including home working, hot desking and the use of phone and video conferencing. In addition, a comprehensive staff travel plan will identify where savings can most usefully be made including incentives to encourage walking, cycling and use of public transport.

Behaviour change amongst staff will be supported through a Climate Change Champions scheme to recognise and implement energy saving. Climate Change Champions will be drawn from all levels across the Council, to help identify carbon reduction actions and spread good practice and ownership. This will be supported by a programme of advice, information and training.

Objectives and key outcomes

Objectives	Outcomes
To influence the behaviour of staff so as to reduce emissions from their work and personal activities, and encourage responsibility for adaptation:	
• Awareness raising, training and information provision; • Communication Plan;	• Every member of staff is aware of how they can contribute to carbon reduction. • All staff are aware of the risks of climate change to their area of work, local community and personal life, and the ways in which they can adapt, and encourage others to adapt.
• Championing and incentives;	• Programme to identify, support and incentivise climate change champions. • Staff travel & car parking plan including incentives and charges
• Systems changes.	• Climate Change actions are integrated into service plans targeting areas where emissions can be reduced • In PDR's, staff sign up to a personal commitment to reduce emissions with specific actions • Flexible working patterns • Use of improved technology e.g. video conferencing

Existing Good Practice

Green Point

The Green Point area in the staff lounge at County Hall has been in place since April 2003. Staff can recycle plastic mailing covers, spectacles, CD's, CD cases and mobile phones. To date the following items have been collected and sent for recycling:

- Over 86 kg of plastic mailing covers.
- 260 pairs of used spectacles
- Over 29 kg of CD's and CD cases
- 52 Mobile phones

A waste paper collection scheme also operates across the Council's Offices and Libraries. Since the scheme commenced in 2003, over 512 tonnes of paper have been sent for recycling.

Key Priority Three

Public Behaviour Change

Bedfordshire County Council is in an excellent position to be able to influence the way that members of the public incorporate climate change issues into their daily lives. From 2008, a new national indicator will be introduced, measuring the Council's performance at achieving a per capita reduction in carbon emissions in the County.

In partnership with others the Council will raise public awareness and aim to influence behaviour through the coordinated actions of communities and existing organisations.

There will be an increased focus on using communications and existing media to communicate the importance of climate change mitigation and adaptation. Demonstration projects will be developed and there will be a spotlight on working directly with the community via established groups. This Priority will form the foundation for the Countywide Climate Change Strategy.

Objectives and key outcomes

Objectives	Outcomes
To influence the behaviour of the public to increase actions which mitigate against climate change, reduce emissions of greenhouse gases, and to adapt to climate change. To do this through:	
• Public awareness campaigns;	• Identify and communicate ways in which the highest polluters can reduce their CO_2 emissions. • Identify and communicate the risks of climate change and adaptation actions to the most vulnerable people and communities.
• Working with communities and other organisations to support community action;	• Support taking action on climate change at community level. • Opportunities to link with national, regional and sub regional initiatives maximised.
• Making it easier for people to take action on climate change through the provision of information, advice, funding etc;	• Continue to support the provision of advice lines to residents. • Customer contact centre staff will be trained to signpost members of the public to advice on energy efficiency measures. • Work with Trading Standards to set standards for approved installers.
• High profile or visible demonstration and good practice projects.	• Public promotion of exemplar or demonstration projects.

<u>Existing Good Practice</u>

Tastes of Bedfordshire

Thanks to concerns about climate change, more people are stopping to consider the impact that everyday goods - including food - have on the environment. Food miles are the measure

of the distance a food travels from field to plate and agriculture and food now account for nearly 30 per cent of goods transported on our roads.

This travel adds substantially to the carbon dioxide emissions that are contributing to climate change. The 'Tastes of Bedfordshire'* project helps people to source outlets for locally produced food and crafts including farm shops, farmers markets and home delivery services. The project also aims to broaden and strengthen networks of Bedfordshire's producers and distributors and to promote a food and craft culture within the County.

* http://www.tastesofbeds.com

Key Priority Four

Procurement

69% of the Councils carbon footprint is made up of indirect emissions, which are produced off-site, indirectly and embedded into the goods and services we procure. These indirect emissions are governed by the purchasing decisions the Council makes about services, products and contracts. The impacts of some decisions are hard to influence. They depend on the practices of companies and organisations that supply the Council, on group purchasing decisions and also on the pressure on local authorities to save money by implementing efficiency measures.

However, the Council is able to develop new approaches to procurement through revised policies, improved information provision and by working with its suppliers to improve practice over time.

The procurement process currently considers climate change issues for some decisions and seeks to find a low embedded carbon option where possible. The Council excels in the procurement of green electricity tariffs which currently makes up about 70% of the total electricity supplied to its estates, schools and streetlights.

Objectives and key outcomes

Objectives	Outcomes
Over 5 years, demonstrate exemplar practice in sustainable procurement, by:	
• Incorporating climate change criteria into procurement decisions;	• Procurement methodology and decision making process to incorporate mitigation and adaptation principles. • 100% of purchased products, services and contracts to be compliant with this process by March 2009`. • Assess all contracts on the contract register for climate change implications and identify opportunities for quick wins. Incorporate climate change implications into specification design.
• Active engagement with suppliers to encourage behaviour change and local sourcing of goods and services;	• Improved opportunities for local suppliers to work with the County Council. • Bedfordshire-based contractors to become members of the Green Business Network.
• Increasing the Council's leverage on suppliers by working with others.	• Develop good practice network / consortia.

Existing Good Practice

Green Electricity

The Council currently procures around 70% of its electricity from 'green tariffs'. Electricity supplied to County Hall and Bedfordshire's streetlights is sourced from 100% renewable sources. This saves around 6000 tonnes of CO_2 per annum, equivalent to around the same amount as absorbed by 10,000 trees over their 40 year lifespan.

Key Priority Five

Energy Management and Property

The Council owns and manages over 300 buildings including offices, schools, social services centres, libraries and farms. It is also responsible for commissioning new buildings. The building fabric, heating and usage all influence the carbon footprint and buildings will have to adapt to climate change by improving ventilation and shading and increasing resilience to flooding and rain penetration. Adaptation is considered in relation to flood risk for new Council buildings, but not yet for existing buildings.

22.5% of the Council's carbon footprint comes from electricity production and distribution. This can be reduced by (1) reducing demand (2) switching to renewable energy supplies and (3) installing the Council's own renewable energy facilities.

Objectives and key outcomes

Objectives	Outcomes
To work with existing building stock (including schools) to seek out and deliver emissions reduction and adaptation opportunities, by:	
• Extending the detailed carbon footprint of each building and facility (e.g. street lights), beyond on-site emissions and electricity, and setting annual reduction targets;	• 10% reduction in CO_2 emissions from the building stock by March 2010 and a 20% reduction by March 2012.
• Training relevant staff e.g. property managers, site agents and caretakers;	• Training provided for 70% of property managers (including schools) by March 2009, and 90% by March 2010.
• Ensuring excellent emission standards in all new builds and refurbishment programmes.	• All new buildings and refurbishments to meet BREEAM* 'very good' standard by March 2009 and 'excellent' standard by March 2011. • Explore retrofit scenarios by March 2009. • **Set ambition for all new school buildings to be zero carbon by 2016.
• Identify opportunities for community renewables	• Work with carbon trust to assess potential to site wind power on County Council Land e.g. farms. • Explore opportunities for local supply and use of biofuels. • Exploit opportunities to install wood-fired boilers at council premises and schools.***

* Building Research Establishment Environmental Assessment Method – www.breeam.org

** In line with the UK Govt commitment - www.dcsf.gov.uk/publications/childrensplan/downloads/The_Childrens_Plan.pdf

*** Under phase 2 of the DTI's Low Carbon Buildings Programme, 35% grants are available for the capital cost of wood-fired boilers up to a 45kW capacity

• Assessing the risks to all existing buildings and developing adaptation plans;	• By 2010, assess the risks of climate change to all Council properties, with clear adaptation plans for on-going maintenance programmes and new build. By 2012, adaptation measures are implemented as a matter of course across all maintenance and new build programmes.

Existing Good Practice

Energy & Water Management

The Council monitors energy and water consumption at all of its premises and schools. Utility data is collated and entered onto a specialist database which checks bills for accuracy. Issues are flagged for follow up with site managers e.g. £20k pa was saved in water costs at Chiltern View Travellers Site due to leak detection and repair (capital outlay of around £5k).

All sites have been benchmarked against average usage and the system helps to identify poor performers. A programme of surveys based on the sites which show the greatest potential for energy savings has been drawn up. Each survey involves a detailed inspection of the site which is issued with a report listing recommendations for improvement and information about cost and payback.

Key Priority Six

Growth and Economic Development

One of the most significant challenges that Bedfordshire faces in its pursuit of climate change objectives over the next 20 years is the growth in population housing and infrastructure. The County is expected to build 90,000 new homes by 2031. Without fundamental changes to the way new houses, infrastructure and economic development is implemented, development on this scale will lead to both significant increases in the County's carbon footprint and present additional problems in adapting to a changing climate.

The Council promotes sustainable growth through its role in influencing and advising on developments. There are already a few examples of good practice in the County, such as the Wixam's development which achieved a 'very good' standard for energy efficiency and sustainable design. A Green Infrastructure plan is also in place, promoting green infrastructure as an integral part of the Growth Area developments.

The infrastructure that supports businesses and their employees, and the products and services that they produce all have a substantial impact on the County's wider carbon footprint. The Council's role in developing a strategic framework for economic growth has significant potential to change practice, through raising awareness of adaptation and emission reduction practices and promoting low carbon technologies.

The Council is working actively with EEDA and regional partners to promote climate change mitigation and adaptation within the business community through the Regional Economic Strategy. It supports Business Link to provide advice to small and medium sized enterprises (SMEs) and a Green Business Network which offers advice and training to businesses wishing to adopt lower carbon practices.

The ability of the County to mitigate and adapt to climate change through harnessing the opportunities presented by growth in population, housing and infrastructure will be shaped largely by the proposed Countywide Climate Change Strategy.

Objectives and key outcomes

Objectives	Outcomes
Create the environment, structures and partnerships to make Bedfordshire an exemplar of sustainable growth, and influence the development of a low carbon Growth Area so as to reduce the risks of climate change.	
• Create the strategic environment within which growth and infrastructure development promotes low carbon living and is resilient to the impacts of climate change.	• Proactive work with partners to promote low to zero carbon development and renovation of new and existing developments. • Proactive work with partners to ensure that new development, renovation and existing developments are resilient to a changing environment and climate.
• Work with local and regional partners in the delivery of the Regional Economic Strategy;	• Work with partners to ensure that the RES delivery actively promotes mitigation and adaptation – ongoing.

• Improve the support to businesses to help them reduce their emissions, adapt to future risks, and maximise opportunities for green business;	• Work with SME's to take action to reduce emissions and adapt to climate change by March 2010. • 100% for Bedfordshire-based businesses supplying the County Council to be members of the Green Business Network by March 2010. (repeats target in procurement section).
• Actively support the development of renewable energy, sustainable construction and other environmental technologies and businesses in the County.	• Survey and then set a target for the % of County GDP from the environmental technology sector. Target set by March 2009.

Existing Good Practice

Green Business Network

For 10 years the County Council has supported the Green Business Network which is led by local businesses. The Green Business Network (GBN) offers advice and training on a range of issues including environmental management systems, sustainable procurement, energy management and resource efficiency. The Service also facilitates business to business networking and exchange of environmental good practice.

Key Priority Seven

Waste

The County Council has responsibility for waste disposal within Bedfordshire. In 2005/6, 68% of waste was disposed in landfill which resulted in over *100 tonnes of methane emissions. Methane is an important greenhouse gas because it has a global warming potential 21 times that of CO_2. Bedfordshire has started to capture this methane for use in electricity production.

The UK waste Strategy 2007 sets out a clear framework for reducing the amount of waste sent to landfill towards generating energy from waste.

Objectives and key outcomes

Objectives	Outcomes
Provide a strong framework and leadership for the reduction in waste and emissions from waste management, by:	
• Ensuring management of waste is carried out in a sustainable way;	• By 2012, the risks of climate change have been assessed for all existing and future waste sites. Plans in place for adaptation measures. • Develop an energy from waste plant.
• Reducing the amount of waste that goes to landfill by exceeding Waste Strategy 2007 targets;	• Set a target to reduce the methane and CO_2 emissions from waste management. Target for 2010 and 2021 by March 2009. • By March 2009, set a medium term target for % of methane to be recovered from landfill sites for generating electricity by 2012 with the ultimate aim of 80% recovery by 2012.
• Promoting the waste hierarchy and the use of waste as a resource, increasing recycling and composting;	• Recycling and composting rates to exceed national targets (40% by 09/10, 50% by 2015)). • Exceed BVPI820 targets for reduction in total tonnage of household waste arisings sent to landfill (63.32% 07/08, 54.13% 08/09, 50.78% 09/10). • Implementation of Bedfordshire Authorities Municipal Waste Management Strategy.
• Encouraging the management of waste at source in relation to all forms of development in order to promote the waste hierarchy.	• Target to be determined following consultation on Bedfordshire and Luton Minerals and Waste Development Framework. Target to be set by March 2009.

Existing Good Practice

* Methane emissions have been estimated as a result of the Council's expenditure on waste disposal. It is also possible to estimate these emissions from waste tonnage figures, however, in order to accurately understand methane emissions, monitoring of disposal sites should be carried out.

Food Waste Collections

Bedfordshire County Council is operating a 12 month food waste collection from 5000 properties across mid Bedfordshire. Around 2.2 tonnes of food waste per day is collected and taken to Biogen's (Bedfordia) biogas plant where it is mixed with pig slurry before undergoing a chemical digestion process. This results in the production of gases which are used to generate electricity and solid waste which is used as a land additive.

Key Priority Eight

Schools

Bedfordshire schools are responsible for 40% of the Council's total carbon footprint (heating and electricity and transport). While the schools are managed independently, the Council's Education Department provides the overview strategy for and owns most of the school buildings. There is great potential to address climate change in schools through both the management of buildings and awareness raising and learning within the curriculum.

There is existing practice to support carbon reduction in schools. The Council's Sustainability Team provides energy reports which include information about energy use and potential savings. The Local Authority Energy Finance Scheme (LAEF) provides an initial capital investment for energy efficiency projects and the Council has funded a number of small scale renewable energy demonstration projects.

Over 200 schools have a travel plan in place, aimed at reducing car journeys and improving safety and several have registered on the Eco Schools programme.

A new coordinated Schools programme is called for, to draw together all existing school based work, raise awareness, inspire commitment and provide ongoing advice. Ideally the programme will be developed in partnership with schools and other community based organisations.

Objectives and key outcomes

Objectives	Outcomes
Partner schools to make the most of the emissions saving opportunities and learning about climate change, by:	
• Developing clear policies and action plans;	• 50% of schools to have adopted a climate change policy by March 2009, 100% to have adopted a policy by March 2010.
• Maximising the use of existing and future funding to invest in carbon reduction and adaptation measures;	• CO_2 emissions from schools reduced from 14.8kt in 2005/06 to 12.5kt (15% saving) in 2010, and 11.8kt (20% saving) in 2012*. • School management and maintenance plans to consider adaptation issues by 2010. • Set ambition for all new school buildings to be zero carbon by 2016
• Raising awareness about climate change amongst children and the wider community through educational activities.	• Work with partner organisations to capitalise on existing initiatives.

*Reduction from 14.8kt to 12.5kt (-15%) until 2010 means a reduction of 4% of the overall carbon footprint. Reduction from 14.8kt to 11.8kt (-20%) until 2012 means a reduction of 5% of the overall carbon footprint.

Existing Good Practice

School Travel Plans

The County Council's school travel initiative aims to give every child the opportunity to walk, cycle and use the bus as part of everyday life and in particular to enable safe journeys to and from school. Developing a school travel plan is the first step to changing travel habits and reducing dependency on the private car. The Council is on target to ensure that all of Bedfordshire's schools will have a travel plan in place by 2010.

Key Priority Nine

Access, Mobility and Travel

Travel contributes significantly to CO_2 emissions and presents a significant challenge for a rural county. The way that developments are structured influences peoples need to travel to work, shops and services. The growth planned for the county offers unique opportunities to shape the way that people move about. Initiatives to encourage walking, cycling and public transport will have a positive impact on greenhouse gas emissions as well as promoting sustainable communities and personal health.

Bedfordshire County Council can influence these issues through its own working practices, the Local Transport Plan, Local Area Agreement and the achievement of themes and outcomes in the Outdoor Access Improvement Plan.

Objectives and key outcomes

Objectives	Outcomes
Focusing on how staff travel to and for work, as well as the Council's own travel and transport services provided within the County, reduce the impact of travel by:	
• Survey staff to enable calculation of CO_2 emissions resulting in travel to and for work.	• Comprehensive review, rewrite and relaunch the Council's staff travel plan based on staff travel survey, focusing on areas of biggest impact. Use this as an exemplar of best practice to inspire others to take similar action.
• Encouraging access without increasing the need to travel through the LAA and LTP; • Where travel is undertaken, to encourage walking, cycling and public transport use;	• By March 2009 measures are in place to offer choices that can enable change including: ○ Cycle initiatives/routes ○ Park and Ride expansion ○ Car sharing schemes • Implement improvement actions contained in the Outdoor Access Improvement Plan.
• Managing the Council fleet to facilitate a shift towards fuels with no or lower greenhouse gas emissions.	• Promoting transport procurement which encourages modal shift and cleaner fuels. • Understand opportunities to reduce emissions and risks of climate change and have a plan in place to address both by March 2009.

<u>Existing Good Practice</u>

Park and Ride

Bedford's Park and Ride based at Elstow was launched in November 2005. This is Bedfordshire's first official park and ride site with a 480 space car park, terminal building, toilets and sheltered waiting area. The site, which is operated in partnership with Bedford

Borough Council and Stagecoach, primarily serves the south of Bedford. A further three sites are proposed to cater for traffic from the north, east and west.

For the year ending 31st March 2007 Park & Ride will have prevented over 160,000 cars travelling into Bedford's town centre making significant reductions in congestion and pollution.

Key Priority Ten

Green Infrastructure

Bedfordshire's countryside and green infrastructure provides people with space for leisure and sporting activities and opportunities to learn about the environment. Its land and soils provide useful carbon sinks* which store up to 300 times the amount of CO_2 we burn in fossil fuels but are increasingly under threat from development.

As we adapt to a changing climate, the design and management of green spaces can enable them to provide other vital functions such as shading and cooling and increased resilience to flooding. The countryside will need to be managed so that it provides opportunities for native flora and fauna to migrate in response to climate impacts.

The Council is able to positively influence these roles both in its roles as a landowner and in its ability to influence new developments through the planning system. A Strategic Green Infrastructure Plan is in place for Bedfordshire and Luton.

Objectives and key outcomes

Objectives	Outcomes
Maximise the opportunities for mitigating emissions and adapting to climate change through the Council's management and influence on the County's green infrastructure and countryside, by:	
• Raising the public's awareness e.g. through visitor information and educational activities;	• New signage promoting climate change mitigation and adaptation in place in 5 sites by March 2009.
• Maximising opportunities for the production and use of renewable energy on sites (e.g. bio-fuels);	• Feasibility study undertaken by March 2009.
• Maximising opportunities for carbon sequestration by trees, habitats and soils;	• Review of opportunities and action plan in place by March 2009. • Explore opportunities for carbon offset schemes within the County
• Increasing the resilience of species, habitats and green spaces to climate change;	• Clear adaptation plan in place by April 2009 for open space, Green Infrastructure, habitats and biodiversity which encompasses new development, highways maintenance and countryside management.
• Promoting the creation of new greenspace in accordance with the Green Infrastructure Plan.	• Implementation of district level plans for green infrastructure/greenspace in the County.

<u>Existing Good Practice</u>

Tender Trees Project

The County Council is taking part in "Tender Trees", a national survey, part funded by the Royal Horticultural Society, to identify the survival and growth of plants that were previously

* A **carbon sink** is a natural carbon reservoir. The main natural sinks are plants and other organisms that use photosynthesis to remove carbon from the atmosphere by incorporating it into biomass which releases oxygen into the atmosphere.

considered to be tender or half hardy and therefore usually only able to survive under glass or sheltered conditions.

Throughout 2007, Parish Tree Wardens were asked to help record a number of identifiable species e.g. *Australian Acacia dealbata (Mimosa*) which now appears to be thriving in urban gardens. Since its introduction from Tasmania in 1820, this species has traditionally been restricted to south west England, the south coast or London, however, recent hot summers and mild winters have seen it migrating northwards.

Appendix 4

Corporate Sustainability Steering Group

List of Members at January 2008

Caroline Carruthers (Chair)	Customer Engagement & Corporate Services
Elected Member	(To be confirmed)
Richard Ellis	Customer Engagement & Corporate Services
Richard Watts	Environment
Rebecca Thody	Communications
Cajetan Chukwulozie	Internal Audit
Robert Gregan	Procurement
Basil Jackson	Transport & Highways
Andrew Smith	Waste
Ian Porter	Cultural & Community Services
Mark Bassett	Property
Peter Fraser	Partnership Manager
Paula Judd	Sustainability Team
Stephen Mooring	Sustainability Team
Chris Mears	Accommodation Services
David Bevan	Heritage & Environment
Brian Edwards	Schools Standards
Elaine Taylor	Risk Management
Mick Bowden	Finance Services
Barbara Mallen	Adult Social Services
Sue Warboys	Children's Services
(To be confirmed)	Human Resources