# Cambridge City Council Climate Change Strategy 2012 – 2016

## October 2012

**CONTENTS**

## Foreword

The debates about whether climate change is happening and if it is caused by human activity are over. The time for action has arrived; both to manage the effects of the climate change that is already taking place, as well as to reduce the adverse impact of climate change in the future.

I am therefore delighted to introduce the second Cambridge City Council Climate Change Strategy and Action Plan. This builds on our first Strategy and Action Plan, which provided the framework for increased action from 2008 to 2012. It also delivers the commitment that we made in August 2012, by signing the 'Climate Local' declaration, to publish a set of actions to reduce carbon emissions and to manage climate impacts.

Cambridge City Council has already taken a range of actions to tackle climate change. For example, we began using lower emission fuels in our vehicles in 1998; we have made energy efficiency improvements to Council-owned homes which reduced fuel bills for local tenants by approximately £1,200,000 between 2007/8 and 2010/11; through our home energy efficiency work we have contributed to a reduction of 11% per household in domestic gas consumption between 2005 and 2010; and we set high environmental standards for new developments in the city, including requiring renewable energy generation in new developments. But there is much more that must be done if we are to play our part in averting dangerous climate change in the future.

Despite introducing a number of innovative projects as part of the implementation of we our first Climate Change Strategy, we acknowledge that the Council has not reduced carbon emissions from its own operations by as much as we had expected to. By adopting a more planned approach to reducing our emissions, the Council anticipates that it will be able to reduce its emissions of carbon dioxide and other greenhouse gases by 20% by March 2016 from the baseline year of 2010/11. The five-year Carbon Management Plan which sits underneath this strategy sets out 64 projects which will deliver this commitment, ranging from installation of solar thermal technology to provide a source of renewable energy for Abbey swimming pool, to the installation of highly energy efficient lighting solutions in Council buildings and facilities.

We will not tackle the causes and consequences of climate change by focussing on our own emissions alone. The people who live and work in Cambridge demonstrate daily their desire to tackle climate change. Many residents travel to work by bike or foot; the proportion of household waste recycled or composted is amongst the highest in the country; and the city's universities and institutes lead the world in researching the potential solutions and adaptations to climate change.

We will set the bar high for businesses, local communities and other organisations to follow. For example, we will use our planning policies to push for the highest environmental standards in new developments. We will also deliver the services needed to support local communities and businesses to achieve these high standards, including

increased opportunities for recycling, support for households and landlords to improve the energy efficiency of properties, and initiatives to encourage cycling and use of public transport. We will also work closely with our partner organisations to maximise the local impact of national funding for climate change initiatives and deliver low carbon infrastructure and energy efficiency improvements which will have lasting benefits for the City.

International and national action to tackle climate change is gathering pace. This strategy and action plan sets out the steps that the City Council will take, working with local communities, businesses and partner organisations, to help tackle global climate change.

**Tim Ward**
Executive Councillor for Planning and Climate Change

## 1.0 Introduction – Cambridge, a city at the forefront of low carbon living

Our climate is changing. It has always changed in response to natural environmental processes, but it is now widely accepted that human activities are leading to climate change of a scale and pace that threatens our very way of life. Such a global challenge requires a global response, and the international framework for action is becoming stronger. The UK Government has initiated a broad range of policies and programmes that contribute to this response and address the causes and consequences of climate change in the UK.

Individuals, communities and organisations in localities across the world need to take action if national and global efforts to address climate change are to be successful. Cambridge City Council has played a leading role in work to tackle climate change at the local level. One of the City Council's eight corporate vision statements is: 'a city in the forefront of low carbon living and minimising its impact on the environment from waste and pollution.'

Through implementing its first Climate Change Strategy and Action Plan for 2008-2012, the City Council has already achieved a considerable amount. However, there remains much to be done if challenging international targets on reducing greenhouse gases are to be achieved. The City Council remains committed to playing a leading role in efforts at the local level. This revised Strategy and Action Plan establishes the framework for action by the City Council to address the causes and consequences of climate change over the next five years. It describes the current context, our rationale for intervention, our future objectives and the actions we plan to take in order to achieve them.

## 2.0 Context

### How is our climate changing?

Climate change is influenced by the 'greenhouse effect'. This is a natural process which keeps the earth warmer than it would otherwise be and makes life on earth possible. Light from the sun passes through the atmosphere and warms the surface of the earth. Most of the heat escapes into space, but like the glass in a greenhouse, certain gases in our atmosphere trap the heat, preventing it from escaping back to space. Over time, human activity has led to an increase in the amount of carbon dioxide and other greenhouse gases in the atmosphere, which has increased the greenhouse effect and is causing the climate to change.

The latest climate monitoring figures from the Met Office show that global temperatures have increased by 0.75 °C during the 100 years up to 2011[1]. The greatest change occurred in the period since the mid-1970s, when average global temperatures increased by more than 0.15 °C per decade. The most recent report by the Intergovernmental Panel on Climate Change (IPCC) in 2007 concluded it is more than

[1] http://www.metoffice.gov.uk/climate-change/guide/science/monitoring

90% likely that most of the global warming that has occurred since the mid-20th century is due to the increase in human-caused greenhouse gas concentrations.

Unless we take action now, global warming will continue. The most recent report by the Intergovernmental Panel on Climate Change (IPCC) in 2007 concluded that average global temperatures are likely to increase by 1.8-4 °C by the year 2100 compared with 1999, and possibly as much as 6.4 °C [2].

The IPCC also concluded that we can expect to see global temperatures rise by about 0.2 °C per decade for the next few decades regardless of what we do, because it takes the climate 30-40 years to react to the gases that we emit now.

**The impact of Climate Change on Cambridge**

Predicting future changes to our climate is a complex process, and becomes even more difficult when trying to narrow those predictions to smaller areas. In 2002 the UK Climate Impacts Programme (UKCIP) produced scenarios of future climate changes for the UK. In 2009 the UK Climate Projections (UKCP) programme provided projections of how the climate will change in each region based on low, medium and high emissions scenarios. The data from these two programmes suggests that by 2080 the East of England will experience:

- An increase in average temperatures of between 2 and 4.5 °C[3].
- Average seasonal temperatures are likely to increase, with average summer temperatures increasing by 1.3 to 4.7 °C and average winter temperatures increasing by between 2.6 to 3.7 °C[4].
- An increase in the number of 'extremely' warm days, by up to 14 days on a low emissions scenario and 30 days on a high emissions scenario[3].
- Increases in rainfall overall, with mean precipitation increasing by 1% to 2%[4]
- Greater seasonal extremes in rainfall, with average winter rainfall increasing by between 16% and 26% and average summer rainfall decreasing by between 14% and 27%[4].
- Seasonal increases in the intensity of rainfall, with around 0.25-1.25 more days of intense rainfall in winter[3]
- Decrease in summer and autumn soil moisture by up to 50%[3].

[2] Pachauri, R.K. and Reisinger, A. (Eds.), (2007), Fourth Assessment Report of the Intergovernmental Panel on Climate Change, IPCC, Geneva, Switzerland http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms3.html

[3] UK Climate Impacts Programme, 2002.

[4] UK Climate Projections programme, 2009. All figures are based on central estimates for the low and high emissions scenarios

## Risks for Cambridge

There are three key risks for Cambridge associated with the predicted changes in climate identified above:

- increased summer temperatures and heatwaves;
- flooding; and
- water shortages and droughts.

It is essential that Cambridge City Council contributes to wider efforts to reduce greenhouse gas emissions in order to limit the scale of change to our climate and the associated impacts. However, it is also vital that we take steps to manage the risks and adapt to the changes in our climate.

Increased summer temperatures and heatwaves

Increased summer temperatures could lead to summer heat waves and the exceptionally hot years experienced in 2003 and 2006 could become the norm by the 2050s[5]. This would have significant impacts on people, the economy and the environment. The UK Climate Change Risk Assessment[6] and the Government's Heatwave Plan[7] identifies the following potential risks from increased summer temperatures:

- An increased risk of heat-related deaths. The summer 2003 heatwave, which saw the highest ever temperature recorded in Cambridge of 36.9 degrees, led to a significant increase in the number of heat-related deaths
- Increased incidence of heat-related illnesses including heat stroke, heat exhaustion, heat rash and heat cramps
- An increased risk in the number of skin cancer cases and deaths
- An increased health risk from water, vector and food borne diseases
- A loss of productivity for businesses due to overheating. Based on the medium or high UKCP09 scenarios, the East of England and the South East are likely to face the highest loss of staff days due to heat[8]
- Increased energy consumption from cooling and refrigeration
- Subsidence and heat-related damage or disruption to buildings, energy and transport networks
- Increased risk of wildfires

[5] Climate UK, A Summary of Climate Change Risks for East England: to coincide with the publication of the UK Climate Change Risk Assessment (CCRA), 2012
[6] DEFRA, UK Climate Change Risk Assessment: Government Report, January 2012, London, The Stationery Office
[7] Department of Health, Heatwave Plan for England, 2007
[8] Climate UK, A Summary of Climate Change Risks for East England: to coincide with the publication of the UK Climate Change Risk Assessment (CCRA), 2012

- Threat of extinction to some species which are already at the limits of their habitat ranges
- Species and habitat migration, including the invasion of non-native species, pests and diseases for which we may not be prepared

However, while there is likely to be an increased risk of heat-related deaths as a result of hotter summer weather, it should be noted that there are currently more cold-related deaths in the UK, the number of which may reduce as a winter temperatures increase. Milder winters are also likely to lead to a reduction in energy consumption in winter months from heating buildings.

Flooding

Increases in the amount and intensity of rainfall in the winter are predicted to increase the area of severe flood risk in Cambridge City from the River Cam. Experience of recent floods suggests that there is also a significant risk from flash flooding. The interim review of the summer 2007 floods in the Midlands and Yorkshire found that around two-thirds of the flooding resulted from rainfall exceeding the local drainage capacity rather than rivers bursting their banks.

The key impacts of any flooding would be:

- Public health and safety risks for residents
- Long-term physical and mental health impacts for residents
- Damage to buildings and infrastructure
- Disruption of the local economy through lost work days, disruption of transport and supplies and insurance and repair costs
- Habitat changes and restoration costs

Water shortages and droughts

Our water supply is determined by the level of rainfall that feeds our rivers and recharges groundwater levels. The UKCP09 data outlined above suggests that in future the East of England will experience greater seasonal extremes in rainfall, with wetter winters and drier summers. Coupled with higher summer temperatures, which increase evaporation rates and water use by vegetation, the level of available water resources could decrease even more.

The risk of water shortages and droughts can therefore be expected to increase as the climate changes. This would have varying degrees of impact on water users, including:

- The need for water rationing
- Hosepipe bans
- Disruption of water-reliant businesses
- Closure of water-reliant recreational activities

- Reduced water quality standards
- Species and habitat stress
- Deterioration of river and wetland ecology

There are a range of responses that could be adopted by water users, including the installation of more water efficient fixtures and fittings in properties.

**International and national action on climate change**

Man-made climate change is a global challenge that requires a global response. The United Nations has played a central role in co-ordinating international efforts to slow the pace of climate change and manage the risks associated with it. The international framework for action is built upon:

- The **UN Framework Convention on Climate Change (UNFCCC)**, which sets the overall framework for international efforts to tackle climate change. The Convention was adopted at the Rio Summit in 1992 and 195 countries have now signed up to it. The goal of the convention is to stabilise greenhouse gas concentrations at a level that would prevent dangerous man-made interference in the climate system. The Convention places the onus on industrialised nations, as the major source of emissions to date, and directs funding to developing countries to address climate change.
- The **Kyoto Protocol**, which was adopted in 1997 and came into force in 2005. It set binding targets for 37 industrialised countries and the European Union for reducing greenhouse gas emissions by 5.2 per cent against 1990 levels over the five-year period 2008-2012. The European Union agreed to reduce its emissions by a total of 8%, and the UK's share of this corresponds to a legally binding target for the UK to reduce its emissions by 12.5% below 1990 levels by 2012.

As the scientific consensus around the causes of climate change has grown, the international framework for action on climate change has become stronger. This Strategy and Action Plan aims to help stimulate action by individuals, communities and organisations in Cambridge that will contribute to these international efforts. The key developments that have occurred since the 2008-2012 Strategy was developed have included:

- The **Cancun Agreements** in 2010, which set out commitments to enhance international action and co-operation on the management of climate change risks, particularly in developing countries. National governments also agreed in 2010 that emissions need to be reduced so that global temperature increases are limited to less than 2 degrees.
- The **UN Climate Change Conference in Durban** in 2011, which delivered a breakthrough in the international community's response to climate change, with a decision by national governments to adopt a universal legal agreement on climate change as soon as possible, and no later than 2015.

In response to greater agreement at the international level, increased scientific consensus and greater public recognition of the need for action, the UK Government has introduced a significant amount of new national legislation, policies and initiatives to address climate change since the adoption of our Strategy for 2008-2012. This refreshed Cambridge City Council strategy reflects and responds to the key changes, including:

- The **Climate Change Act 2008** establishes a long-term framework for tackling climate change. It introduces a unilateral, binding national target to reduce carbon emissions by at least 80% below 1990 levels by 2050, with an interim target of a 34% reduction by 2020. The Act requires Parliament to agree four five-year carbon budgets, which set the level of emissions reductions needed to achieve these overall targets. The Act also introduces a number of measures to promote the management of climate change risks, including a requirement for the Government to conduct a national Climate Change Risk Assessment and establish a national adaptation programme, and a requirement for public bodies and utilities to report on the steps they are taking to address climate change risks to their work.
- The **Carbon Plan**, published in December 2011 sets out Government's Plan for achieving the emissions targets set in the first four carbon budgets. It identifies the emissions reductions that will be needed in five key areas of the economy (homes and buildings; transport; industry; electricity; and agriculture, land use, forestry and waste) and how these can be achieved.
- Changes to planning policy to support action to address climate change. The **Planning Act 2008** introduced a duty on Local Development Frameworks to include policies that make a contribution to both climate change mitigation and adaptation. **The Planning and Energy Act 2008** enables local authorities to set energy requirements for energy use and energy efficiency in Development Plans. Building on the existing Code for Sustainable Homes, which sets a national standard for sustainable design and construction of houses, the **Zero Carbon Homes Policy** will come into effect in 2016 which will require all carbon emissions from energy use in new homes to be eliminated. Public buildings will be required to be zero carbon by 2018; all other non-residential buildings will be required to be zero carbon by 2019.
- The **Energy Act 2008** introduced a number of measures to encourage renewable energy generation by households and non-domestic users (including the public and private sectors). This included the **Feed In Tariff** scheme, and the **Renewable Heat Incentive**, which will provide financial support for renewable heat sources.
- The **Energy Act 2011** introduced a number of new measures to stimulate energy efficiency measures for homes and businesses. The **Green Deal** will support improvements to the energy efficiency of homes and non-domestic properties, funded by a charge on energy bills rather than upfront charges to the consumer. The **Energy Company Obligation** will take over from existing obligations (such as the Carbon Emissions Reduction Target) that expire at the end of 2012 and will require energy companies to target support where there is greatest need, including vulnerable people on low incomes and residents in hard-to-treat housing.

- The **UK Climate Change Risk Assessment (CCRA)**, published in 2012, sets out the potential impacts of climate change at a national level. DEFRA commissioned Regional Climate Change Partnerships to produce a summary of regional climate change risks, which was produced by Sustainability East for the East of England region. The **National Adaptation Programme** (NAP), which the Government plans to publish in 2013, will set out proposals and policies for how the Government, private sector and others should respond to the risks identified in the CCRA.

**The role of local authorities in tackling climate change**

Climate Local

In August 2012, Cambridge City Council was among the first local authorities to sign the 'Climate Local' declaration. Climate Local has been developed by the Local Government Association as the successor to the Nottingham Declaration on Climate Change, which the Council signed up to in 2006. The Climate Local declaration identifies the following three roles for local authorities in tackling climate change:

- **Community leader** – helping local people and businesses to be smarter about their energy use and to prepare for climate impacts.
- **Service provider** – delivering services that are resource efficient, less carbon intensive, resilient and that protect those who are most vulnerable to climate impacts.
- **Estate manager** – ensuring that our own buildings and operations are resource efficient, use clean energy, and are well prepared for the impacts of a changing climate.

Through developing and implementing this Strategy and the associated Carbon Management Plan, we will deliver the following specific Climate Local commitments:

- Setting locally-owned and determined commitments and actions to reduce carbon emissions and to manage climate impacts.
- Publishing our commitments, actions and progress, enabling local communities to hold us to account.
- Sharing the learning from our experiences and achievements with other councils.
- Regularly refreshing our commitments and actions to ensure they are current and continue to reflect local priorities.

Committee on Climate Change

In May 2012, the Committee on Climate Change, an independent advisory body to Government on climate change matters, published its report on the role of local authorities in reducing emissions and managing climate risk. In developing this Strategy and identifying the actions that we will take over the next fours years, we have taken as

a starting point those measures recommended by the Committee that are within the scope of a district Council. They include:

- Drawing up carbon reduction plans which include a high-level ambition for emissions reductions (e.g. 20% reduction across buildings, surface transport and waste by 2020 relative to 2010 levels).
- Reducing emissions from local authority estates, primarily through use of their own buildings, transport and procurement.
- Influencing emissions from domestic buildings through energy efficiency measures. Primarily through home insulation measures, delivered through national programmes such as the Green Deal and Energy Company Obligation (ECO).
- Influencing emissions from non-domestic buildings.
- Using planning and building control functions to enforce energy efficiency standards in new buildings and extensions.
- Reducing transport emissions by concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport.
- Working with developers to make renewable energy projects acceptable to local communities.
- Planning for infrastructure such as low-carbon district heating networks, green infrastructure and sustainable drainage systems.
- Developing and making district heating schemes commercially viable.
- Promoting sustainable transport through: implementing sustainable travel plans; providing cycling infrastructure; providing better public transport; and promoting low-carbon vehicles by supporting investment in electric vehicle charging infrastructure, and purchasing.
- Waste management initiatives, including: awareness-raising campaigns and providing separate collection for recycling and food waste.
- Preparing for climate change impacts through:
    - Using planning policy to ensure that new development is located in areas of lowest flood risk.
    - Using planning policy and other levers to ensure that buildings and infrastructure are resilient to flooding and heat stress.
    - Managing and extending natural resources to promote biodiversity and reduce flood risk

## 3.0 A Climate Change Strategy for Cambridge

### Purpose

The purpose of this Climate Change Strategy and the associated Action Plan is to establish the framework for the City Council's action to address the causes and consequences of climate change over the next four years. It will help deliver Cambridge City Council's vision of 'a City in the forefront of low carbon living and minimising its impact on the environment from waste and pollution.'

The Strategy is a cross-cutting document which will influence the delivery of key services and the development and implementation of other key strategies and policies, such as the Local Plan, Waste Strategy, Housing Strategy, Office Accommodation Strategy and Portfolio and Operational Plans.

### The Case for Action

Taking action on climate change continues to be a key priority for Cambridge City Council. We believe that doing nothing is not an option and that it is essential for the City Council to take action now to address climate change for the following reasons:

1. **Limiting the local impact of climate change** - As outlined in section 2, the predicted impacts of climate change pose major risks to the safety, prosperity and environment of people and organisations in Cambridge. There is a need to take action now to manage the climate change risks that we cannot avoid, whilst at the same time reducing our greenhouse gas emissions to avert even more dangerous climate change in the decades beyond.
2. **Global fairness** – Climate change requires co-ordinated action around the world, and Cambridge needs to make its fair contribution towards international efforts. People in Cambridge currently produce almost twice as much carbon dioxide per person as the global average and several times more than the average person in many developing countries. Although the effects will be felt strongly in the UK, many developing countries will experience the worst impacts of climate change.
3. **Cost-effectiveness** – The Stern Review illustrated how the costs to the global economy rise as the climate changes and that early action to limit the extent of climate change is ultimately cheaper than waiting to manage the impacts of climate change when they become more severe.
4. **A sustainable economy** – The future costs of doing 'business as usual' will increase as the cost of climate change impacts is felt. They are also likely to increase if the global supply of oil becomes scarcer and energy prices rises as a result. Many observers believe that global oil production will peak at some point. There are a wide variety of forecasts of when this point will be reached, from those who believe that 'peak oil' has already occurred, to those who argue that

the peak will not occur until the 2030s at the earliest[9]. It is important, therefore, that both local and national economies become more sustainable and resource-efficient if they are to remain strong and competitive. The global need for action on climate change will also create increasing business opportunities in the development of sustainable technologies and processes, although it remains to be seen the extent to which the Cambridge and UK economies will benefit from these opportunities.

5. **Quality of life** – Strong action to address climate change can also improve other aspects of life for Cambridge residents. For example, improving the energy efficiency of homes can reduce fuel bills and make them more comfortable to live in. Similarly, increasing walking, cycling and use of public transport can reduce traffic congestion, increase air quality and improve the health of residents.

**Action to date**

Cambridge City Council has been taking action to address climate change for over 15 years. We made a formal commitment by signing the Nottingham Declaration on Climate Change on 22nd September 2006. This was followed by the publication of the City Council's first five-year Climate Change Strategy and Action Plan in 2008, which set out a clear vision and framework for increased action.

Through implementing the approach set out in this previous Strategy and the key measures contained in the Action Plan, the City Council has already made a contribution to international and national efforts to tackle the causes of climate change and manage the risks to communities, the local economy and the natural environment.

The strategy identified three roles for the City Council:

**(i) Council management** – *actions to reduce carbon dioxide emissions and manage climate change risks associated with management of the Council's own buildings and functions.*

We have implemented a number of carbon reduction projects across our operations and our estate, including using our dedicated Climate Change Fund to trial new approaches. These included the installation of a more efficient fan system in the Grand Arcade Car Park Annex and voltage optimisation technology in the Guildhall. Collectively, the 16 projects funded between 2008 and 2011 have delivered estimated savings of £48,000 and 243 tonnes of $CO_2$ per year.

**(ii) Service delivery** - *incorporation of carbon reduction and climate change risk management actions within the services delivered by Cambridge City Council*.

[9] Department of Energy and Climate Change (2011), DECC call for evidence: summary of responses: prospects for crude oil supply and demand

We have set high standard for residents, businesses and other organisations to follow, not least through our planning policies, and where necessary we have taken action to enforce these standards. We have also delivered projects and services that have assisted residents to reduce their carbon emissions.

Along with seasonal and yearly temperature changes and the effects with the economic downturn, Council initiatives have contributed to a 16% reduction in $CO_2$ emissions per capita from the City of Cambridge as a whole between 2005-2009[10] (a 9% reduction in absolute terms – the per capita figure reflects the city's rising population). However, it should be noted that these figures do not take into account the carbon emissions resulting from the production and transportation of the goods that were consumed by residents and businesses in the City. If these emissions are included in the figures, carbon emissions for the City of Cambridge increased over this period.

Some of the key measures and projects that we have implemented over the past five years have included:

- **Setting high sustainability standards for new housing development and the growth of the City**. We have required all new affordable housing on the growth sites to be built to at least Level 4 of the Code for Sustainable Homes and proposals for market housing on the growth sites are required to meet Code Level 3 as a minimum, rising to Code Level 4 after a certain number of units have been delivered. Even higher standards have been set at some sites. For example, the North West Cambridge Area Action Plan (AAP), which was adopted in October 2008, set a UK-leading policy requiring the majority of this 3,000 home development to be delivered at Code Level 5.
- **Working with developers to demonstrate the benefits of sustainable construction of new homes**. For example, a Code Level 5 concept house will be built at the Skanska development on the Clay Farm site to aid the developer in meeting higher standards on future sites. At the Trumpington Meadows site an Enhanced Sustainability Show Home constructed to Code Level 5 will enable new home-owners to enhance the specification of their properties by, for example, increasing the amount of renewable energy provision or the installation of rainwater harvesting systems.
- **Promoting exemplar redevelopment and 'retrofit' schemes**. For example, the City Council was involved in the redevelopment of the Simons House (now Richard Newcombe Court) Sheltered Housing Scheme, which has achieved Code Level 5. The City Council also piloted the installation of innovative energy efficiency solutions at a Council-owned property in Byron Square as part of the Technology Strategy Board 'Retrofit for the Future' project. As a result, the energy rating of the property has risen from C to A.

[10] Department of Energy and Climate Change, (2011), Carbon Dioxide Emissions within the scope of influence of local authorities 2005-2009, http://www.decc.gov.uk/en/content/cms/statistics/local_auth/co2_las/co2_las.aspx

- **Using planning policies to drive the installation and take-up of renewable energy sources**. Since 2006 we have required all major new developments in the City to meet at least 10% of their energy requirements through the use of renewable energy. We have increased these requirements for a number of flagship developments. For example, 15% of the energy required by the Station Area redevelopment will have to come from renewable energy sources.
- **Installing energy efficiency measures in Council-owned homes through the Decent Homes programme and other routes**. Based on the average savings that these types of measures yield, we have calculated that between 2007/08 and 2010/11this work is likely to have prevented more than 6450 tonnes of $CO_2$ emissions, saved more than 29 million kWh of energy and reduced fuel bills for local tenants by more than £1,200,000.
- **Increasing the energy efficiency of sheltered housing schemes**. For example, motion sensor lighting controls at the Ditchburn Place and School Court Sheltered Housing schemes have reduced lighting electricity costs by more than 90%.
- **Carrying out community engagement activities to promote energy efficiency and low carbon living** and increase our understanding of the specific issues facing the City of Cambridge. The Pilot Action Zone project in 2007 targeted over 200 properties in Cherry Hinton and the Comfort Zone project in January 2009 covered 584 properties in the Arbury and West Chesterton wards. A successful series of four events in Queen Edith's ward in 2010 and 2011 brought together local residents, community groups, schools and service providers and resulted in an increased number of referrals for energy efficiency advice.
- **Launching a voluntary landlord accreditation scheme** in 2007 to improve the physical condition and management standards of privately rented homes. As part of the scheme we have provided financial support to the landlords of 50 properties to carry out energy efficiency improvements and meet a minimum energy standard.
- **Delivering and supporting a range of initiatives to reduce car use and promote alternative, sustainable forms of transport**. For example, we have: supported improvements to local bus services, including bus shelters and real time information, with operators and partners; installed electric vehicle charging points at Grafton East Car park and Queen Anne Terrace car park; worked jointly with the County Council to implement an agreed programme of improvements to cycling facilities in Cambridge; and, where possible, secured cycle parking facilities in new developments through the planning process.

**(iii) Partnership and influencing** – *working together with other organisations and partnerships*.

We have worked closely in partnership with the voluntary and community sector, businesses and other public sector organisations to maximise our collective impact on the causes and effects of climate change. Examples include:

- **Providing over £360,000 funding to local voluntary and community groups since 2008 through our Sustainable City Project Grants programme** for work that tackles the causes and consequences of climate change, reduces waste and protects the local environment. Over 90 projects have been supported, ranging from wildlife ponds and community allotments to home energy education and supporting businesses to reduce wasted heat. One of the projects supported, Cambridge Carbon Footprint's 'Carbon Conversations', was judged to be one of the 20 best climate change solutions at the 2009 Manchester International Festival, and similar projects are now delivered across the UK.
- **The Close the Door Campaign** has received support from MPs, climate scientists and the Women's Institute for its simple message to retailers both large and small. As a result of its persuasive, science-based technique, one of the largest coffee shop chains, Costa Coffee, is to bring in a 'close the door' policy across all of its outlets.
- **Working in partnership with neighbouring local authorities and other organisations** through the Cambridgeshire Travel for Work Partnership, Cambridgeshire & Peterborough Biodiversity Partnership and Recycling in Cambridgeshire & Peterborough (RECAP). RECAP has set an ambitious target to recycle or compost 50-55% of household waste by 2015 and was awarded Green Flag status in 2009 in recognition of exceptional performance and innovation.
- **Engaging in the Home Energy Liaison Group**, which aims to raise awareness of climate change mitigation initiatives and research, particularly in relation to refurbishment of housing stock and other buildings and deliver initiatives. The Group includes construction industry representatives, the University of Cambridge, Cambridge Regional College, and voluntary groups such as Cambridge Carbon Footprint and Transition Cambridge.
- **Working with local voluntary and community groups** such as Cambridge Carbon Footprint to develop and deliver events and projects focussing on low carbon living including 'Open Eco Homes', the 'Low Carbon Living' events, and the 'Climate Friendly Homes'.

Much of the focus of the Council's work to date has been aimed at reducing the extent of climate change. However, we have also taken action to manage the risks associated with climate change and to help the natural environment adapt to a changing climate. For example:

- **Implementing a number of projects that will help manage the risks to the Council's estate and operations from climate change**. For example we have used our dedicated Climate Change Fund to support measures that will help reduce the water resources used at two Council sites. In 2009 we installed a rainwater harvesting system as part of the refurbishment of the public toilets at Arbury Court, and in 2010 we installed two 'grey water recycling units' at our depot on Mill Road, which enable us to recycle the water used for cleaning our fleet vehicles.

- **Taking action to increase the urban forest cover**. Trees help cities adapt to a changing climate by providing cooling, capturing pollution, intercepting and infiltrating rainfall and helping to guard against the fragmentation of wildlife habitats. We have measured the extent of tree canopy cover across Cambridge City and are currently exploring ways to protect the existing level of cover and to increase stock in wards and land uses where canopy levels are low; for example directly through planting programmes, or indirectly via guidance or the planning process.
- **Working in partnership we have restored and enhanced local wildlife sites and watercourses across the City**, assisting species and habitats to adapt to a changing climate and extreme events. New Local Nature Reserves such as Cherry Hinton Chalk Pits and Coldham's Common have been designated and management plans adopted to ensure favourable ecological conditions.
- **Creating extensive green corridors within the growth areas** of the City such as at Clay Farm and Trumpington Meadows, which are designed to protect existing habitat networks and create new wetland and grassland habitats linking the City with the surrounding countryside.

**Lessons learnt**

We have learnt a number of lessons from the experience of implementing our first Climate Change Strategy, which have informed the approach we will adopt to tackling the causes, and managing the impacts, of climate change over the next five years. These have included:

- The Council's dedicated Climate Change Fund has given us the flexibility to trial a range of new approaches and technologies across our estate and operations. These projects have helped limit or reduce our carbon emissions from the sites where they were implemented, and we plan to roll out the most cost effective and replicable of them (such as voltage optimisation and LED lighting) across other Council sites during the next five years.
- We recognise that we have not reduced carbon emissions from our own estate and operations by as much as we aimed to when we developed the previous Strategy and Action Plan. As is explained later in this document, this is partly because, although we reduced energy at some sites through targeted projects, we consumed more energy on others as part of wider programmes to improve services and provide better outcomes for residents. We have learnt that we need to take into account the impact on our energy usage and carbon emissions when we make such decisions in future.
- We anticipate that by adopting a more strategic and planned approach in future we will be able to achieve a more significant reduction in our emissions by March 2016. The Carbon Management Plan that accompanies this Strategy identifies the specific projects and resources that will enable us to achieve this reduction. The Plan focuses our efforts on the areas of our operations and estate which contribute most to our emissions, including our swimming pools, car parks, vehicle fleet, offices and

sheltered and temporary housing. By targeting projects at these areas we will be able to maximise the impact of the resources we have available to tackle climate change and achieve a greater reduction in our emissions.

- In order to effectively measure the impact of our projects and ensure that they are reducing our emissions, it is vital that we have effective monitoring systems in place. As part of the work to develop the baseline for our Carbon Management Plan, it has become apparent that the data we have for some Council-owned buildings and sites is based, at least in part, on estimated bills from our energy suppliers. In order to improve the accuracy of the data we hold on our energy usage, we have installed Automatic Meter Reading (AMR) meters on 90% of the sites included in the Carbon Management Plan that use electricity. We are working to install electricity and gas AMRs on all sites that do not currently have them, and will also be taking annual visual meter readings for all sites in future.

- It is important that the steps taken by the City Council to tackle climate change are cost effective. In order to receive funding from the City Council's Climate Change Fund, projects focussing on our own estate and operations have to date required a payback period of less than 5 years and cost less than £100 per tonne of $CO_2$ that they save. However, in order to significantly reduce carbon emissions in future, the City Council recognises that it will be necessary in future to support some projects that do not meet these current criteria, but for which a sound business case exists. We expect the projects included in the Carbon Management Plan to reduce the Council's likely energy and fuel costs by around £340,000 each year. This means that the projects will have paid for themselves within fewer than seven years and many will deliver further savings beyond this period.[11] When selecting projects for inclusion in the plan, we have prioritised those that sit highest in the 'energy hierarchy' (i.e. those that prevent unnecessary energy use and increase energy efficiency) and therefore will deliver the greatest level of carbon reduction in return for the investment being made.

- As the level of technology and standards of sustainable construction continue to advance, it will be important to ensure that we adapt our planning policies to ensure that we secure the highest possible sustainability standards in the design and construction of new homes and buildings. We will use our developing Local Plan to set ambitious standards reflecting the aspirations in the Quality Charter.

**Aims and Objectives for future action**

Cambridge City Council's existing environmental outcomes and objectives are set out in a range of policies and plans, including the previous Climate Change Strategy and Action Plan, the Cambridge Home Energy and Affordable Warmth Policy, the Joint

[11] These figures are subject to change and the exact costs and benefits of a number of the projects will become clearer as detailed work is carried out. The Plan explains the varying degrees of confidence and certainty around achieving the anticipated savings and emissions reductions.

Municipal Waste Strategy for Cambridgeshire and Peterbrough, the Cambridge Air Quality Action Plan and the Cambridge Nature Conservation Strategy. These outcomes are summarised in the table below:

| Outcomes | Objectives |
|---|---|
| A. Tackle the causes and consequences of climate change | A1. Reduce carbon dioxide emissions<br>A2. Manage climate change risks<br>A3. Reduce fuel poverty |
| B. Minimise waste | B1. Reduce the amount of waste generated<br>B2. Increase waste reuse, recycling and composting<br>B3. Reduce waste sent to landfill |
| C. Protect the local environment | C1. Reduce pollution of air, water and land<br>C2. Improve street and environmental cleanliness by reducing levels of litter, detritus, graffiti and fly-posting and fly-tipping<br>C3. Protect and enhance local wildlife |

The need for the Council to respond to climate change has not changed since we produced our first Strategy in 2008; if anything, there is an even more pressing need for action at the local level. The overall aims of our work on Climate Change remain to:

1. Take action that contributes to national and international efforts to avert dangerous climate change by limiting temperature increases.
2. To ensure that the climate changes risks facing the City of Cambridge are appropriately planned and managed.

However, a number of significant changes and developments have taken place over the past five years, some of which have been outlined in Section 3 of this document. As a result, the focus of the objectives for this Strategy, and the actions that will deliver these objectives, is slightly different from those set by the preceding Strategy, particularly the more programmed approach to reducing our own emissions.

**Objective 1: To reduce carbon emissions from the Council's estate and operations and manage the risks to its staff and property**

While the Council has reduced its carbon footprint over the past five years (on a kilogrammes per head of population basis), we are committed to making greater reductions in carbon emissions from our estate and operations by 2016. Working with the support of the Carbon Trust, the Council has developed a detailed Carbon

Management Plan, which sits under this Strategy and will guide delivery of this objective.

The Carbon Management Plan identifies a challenging programme of 64 projects that we plan to deliver over the next five years, ranging from installation of solar thermal technology to provide renewable energy for Council swimming pools, to the installation of more energy efficient lighting solutions in Council buildings and facilities.

By adopting a rigorous and planned approach which focuses primarily on the areas of the Council's activity which contribute most to our carbon emissions (e.g. swimming pools, car parks, vehicle fleet, offices and sheltered and temporary housing), we are aiming to reduce carbon dioxide emissions from our estate and operations by 20% by the end of March 2016.

The broad areas of intervention are listed in Action 1 in the Action Plan at the end of this Strategy, but more detail on the specific projects, and the wider organisational and cultural changes we will be making alongside these projects, can be found in the Carbon Management Plan itself.

It is equally important that the Council ensures that it effectively manages the risks to its staff, property and activities so that we can continue to deliver efficient and effective services for residents and businesses in Cambridge. Actions 2-8 in the Action Plan set out the key steps that we will take to ensure that we adapt as effectively as possible to the key risks of increased temperatures, flooding and water shortages identified in Section 3 above.

**Objective 2 - To set high standards and assist residents, businesses and organisations to reduce their carbon emissions and manage climate risks**

While the City Council can make a valuable contribution to wider efforts to tackle climate change by minimising carbon emissions from our operations and our estate, we recognise the Council also has a vital leadership role to play in setting high standards and supporting and working with local residents, businesses and other organisations to make the changes needed to reduce their carbon footprint and manage the risks posed by climate change.

The Council will use its regulatory functions to set high standards for businesses and residents on reducing their emissions and managing climate change risks. For example, the Issues and Options report for the developing Cambridge Local Plan published in May 2011 includes a dedicated Chapter on Sustainable Development, Climate Change, Water and Flooding[12]. This includes a range of proposals to reduce the climate change impact of new development in the City of Cambridge through the planning process, including:

[12] Cambridge City Council, (2012), Cambridge Local Plan towards 2031: Issues and Options report, Chapter 6: Sustainable Development, Climate Change, Water and Flooding

- setting higher sustainability standards for new developments in the Cambridge Local Plan, including at least Level 4 of the Code for Sustainable Homes for residential developments, and BREEAM certification[13] at 'very good' or 'excellent' level or Zero Carbon Buildings standards for non-residential developments.
- setting high standards for renewable energy provision and actively engaging with developers to secure renewable energy as part of planning agreements for new developments.
- exploring the inclusion of climate change infrastructure requirements in the development of our approach to the Community Infrastructure Levy.

Where appropriate we will take action to ensure that businesses and residents meet these high standards. For example, we will take action to ensure that businesses and residents meet any climate change requirements that are a formal part of a planning permission or Section 106 agreement.

We will also assist residents and businesses to reduce their carbon emissions and manage climate risks through the way in which we deliver services, including by:

- providing support to homeowners, private landlords, private tenants and housing associations to improve the energy efficiency of properties. In the short-term, we will encourage take up of subsidies available for loft and cavity wall insulation through the Carbon Emissions Reduction Target (CERT) scheme by providing grant funding to cover the £150 contribution that residents would otherwise have to make. Moving forward, we are working with partner organisations across Cambridgeshire to explore opportunities for a joint approach to promoting the Government's Green Deal, which comes into effect in 2013 and will allow energy consumers to pay for up-front energy efficiency improvements through an ongoing charge on their energy bills.
- providing specific services that will help residents and businesses to reduce their contribution to climate change. For example we will deliver a range of initiatives to make informed choices about their carbon footprint, for example through: conducting door-knocking campaigns on recycling and waste reduction issues; providing information on cycling and walking opportunities; providing grants to groups that can encourage residents to cycle and walk more often; conducting awareness campaigns on home energy efficiency issues; and publishing and promoting Energy Performance Certificates for Council properties.
- making improvements to Council-owned buildings and facilities which will assist service users to reduce their carbon emissions, such as improving the energy efficiency of Council-owned homes, which will reduce the emissions of our tenants, and exploring new technology which will reduce the emissions of drivers using our car parks.

[13] BREEAM is an internationally recognised assessment method for sustainable building design, construction and operation

- ensuring that climate change impacts are a key consideration when we are designing and developing new services.

**Objective 3 - To work in partnership with other organisations to address the causes and effects of climate change**

In recent years, Cambridge City Council has sought to provide local leadership on climate change issues. However, the context that the Council is operating in has changed significantly since we developed our first Strategy and Action Plan. The economic climate facing the City Council and local residents and businesses is much more challenging than it was five years ago. At the same time, as outlined in Section 3.0, the Government has introduced a greater range of national initiatives and incentives for action on climate change since 2008. It is therefore vital that the Council works with other organisations in Cambridge and beyond to identify opportunities for collaboration and maximise the impact of available funding and resources. The Council is committed to working in partnership with other organisations, including:

- Working closely with the voluntary and community sector, including providing financial support for community-led projects which address the causes and manage the impact of climate change.
- Working with Cambridgeshire County Council and other neighbouring district councils to ensure that climate change issues are addressed as part of joint policies and plans, such as the Cambridge Area Transport Strategy, County-wide planning advice on surface water flood-risk and emergency planning through the Cambridgeshire Resilience Forum.
- Working with Government, neighbouring local authorities, the voluntary sector and business through partnerships such as the Low Carbon Hub and the Cambridgeshire Renewables Infrastructure Framework to deliver low carbon infrastructure and low carbon living, potentially including district heating.
- Working with the University of Cambridge, the private sector and other stakeholders in the Cambridge Retrofit project to explore a model for financing and delivering energy efficiency improvements to existing properties in Cambridge over the next 30 years.
- Exploring and exploiting innovative funding arrangements, such as the Carbon Offset Fund, Community Energy Fund, Community Infrastructure Levy, Green Bank and Green Deal.

While we have developed a considerable amount of experience in relation to the climate change agenda that we share freely with other organisations, the Council also recognises that we need to continue to learn from organisations with expertise at a local, national and international level. To this end, we will continue to share knowledge with the University of Cambridge and Anglia Ruskin University and voluntary and community sector groups. We will also learn from other local authorities who have

piloted successful approaches, particularly those who have also signed the Climate Local commitment.

**Resources**

The actions identified in the Action Plan will be funded through a mixture of sources:

- Existing budgets for delivering key services, particularly for projects or actions that will deliver climate change benefits as part of wider planned developments or improvements to services. These fall within the City Council's General Fund or Housing Revenue Account depending on the services involved.
- The City Council's Repair and Renewals (R&R) budget, which makes provision for maintenance and replacement of assets.
- The City Council's Climate Change Fund, which is a dedicated fund for supporting initiatives that deliver both carbon and financial savings.
- Government and other external funding sources for climate change initiatives.

While some of the actions and initiatives set out in the Action Plan will require additional resources, many of the proposed projects will also deliver significant financial savings for the Council. For example, the 64 projects included in the Carbon Management Plan are expected to a require an investment of £2.3m over the next 5 years (of which around £1.7m has already been planned).

Based on information that is currently available, it is anticipated that the implementation of these projects will reduce the Council's energy and fuel costs by around £340,000 each year. This means that the projects will have paid for themselves in fewer than 7 years and many will deliver further savings beyond this period. We aim to develop effective reporting mechanisms to ensure that these savings are captured as part of the Council's budget process and contribute to the delivery of our wider savings targets for the coming years.

**Targets**

In the previous strategy for 2008-2012, the City Council aimed to reduce carbon dioxide emissions from its activities by 11% from 60.9 kilos per resident per year in 2005/06 to 54.2 kilos per resident per year by 2010/11. Our current data tells us that the City Council in fact reduced its carbon emissions between 2005/06 and 2010/11 by around 0.59% per resident. However, total energy consumption at sites owned by the Council rose very slightly (by around 23,000kwh or 0.1%) in this period and total emissions from the City Council's activities rose by 3.2%.

Cambridge City Council has not reduced carbon dioxide emissions from its activities since 2005/6 by the amount hoped for a number of reasons, including:

- While the City Council reduced energy use at some sites through projects funded through our Climate Change Fund and other initiatives, we consumed more energy on others as part of initiatives to improve services and provide better outcomes for residents, such as extended opening hours at swimming pools, increased hiring of community centres and installing better lighting in a number of car parks.
- The mix of electricity and gas used by the Council has changed during this period, so although total energy consumption fell from 2009/10 to 2010/11 for instance, emissions went up, as a greater proportion of the total energy used was from electricity.
- A number of factors in the 2005/6 baseline data referred to in the previous strategy have made it more complex to make direct comparisons. The baseline included figures for a number of sites which we were either erroneous, or gave a distorting impression because the buildings were closed for refurbishment during that year and therefore not consuming gas and/or electricity at anywhere near the normal rate (whilst being fully operational in 2010/11). If one excluded those sites from the figures to give a more "like for like" comparison, the total energy consumption would be around 1,250,000kwh less in 2010/11 than in 2005/06 for the remaining sites, giving a reduction in per capita emissions of 4.84%.

We have adopted a robust, structured approach to reducing our future energy consumption and carbon emissions through the development of the detailed Carbon Management Plan that sits under this Strategy. By delivering the 64 projects in this plan, we anticipate reducing our carbon emissions by a much greater amount over the next five years than we have achieved since 2005/6. Our aspiration is to reduce carbon emissions from our estate and operations by 20% by the end of March 2016.

The targets set in the previous strategy regarding the carbon footprint of the City of Cambridge as a whole have been met. In the previous strategy, we said that by working with local communities, businesses and partner organisations we would aim to reduce the city's carbon dioxide emissions from 6.2 tonnes per person in 2005 to 5.5 tonnes per person by 2010 (11% cut). The most up-to-date data available from the Department for Energy and Climate Change (DECC)[14] suggests that per capita emissions in the City between 2005 and 2009 fell by 16% from 6.9 tonnes to 5.8 tonnes. Total carbon emissions for the City of Cambridge, including those from homes and businesses, reduced by 9% between 2005 and 2009 from 768,600 tonnes to 706,100 tonnes. If this trend were to continue, we would anticipate the total carbon emissions for the City to reduce to 622,000 tonnes and per capita emissions to reduce to 4.6 tonnes by the end of 2016.

[14] Department of Energy and Climate Change, (2011), Carbon Dioxide Emissions within the scope of influence of local authorities 2005-2009, http://www.decc.gov.uk/en/content/cms/statistics/local_auth/co2_las/co2_las.aspx

However, it should be noted that these figures do not take into account the carbon emissions resulting from the production and transportation of the goods that were consumed by residents and businesses in the City. If these emissions are included in the figures, carbon emissions for the City of Cambridge increased over this period.

While the initiatives introduced by Cambridge City Council may have had an impact on emissions from the City as a whole, it is difficult to identify the extent of this impact. It is likely that other factors, including the impact of the economic downturn and seasonal and yearly variations in temperature, have had a significant impact on energy and fuel consumption in the City of Cambridge since 2005 and therefore the level of carbon emissions.

Domestic energy efficiency in Cambridge has also improved significantly during the period covered. There was an 11% reduction in average domestic gas consumption and a 9% reduction in average domestic electricity consumption in the City between 2005-2010. This is equivalent to an average reduction in $CO_2$ emissions per household of approximately 800 kg over 5 years. Despite a 5% increase in the total number of electricity and gas meters in Cambridge between 2005 and 2010, total domestic gas consumption in the City fell by 13% and total domestic electricity consumption fell by 6%. This is equivalent to a total reduction in $CO_2$ emissions of approximately 24,000 tonnes over 5 years.

Again, while the Council's energy efficiency initiatives may have had an impact on levels of domestic energy consumption, it is difficult to identify what proportion of the reduction they are responsible for. It is likely that a combination of the economic downturn and seasonal and yearly temperature variations have had a significant impact on consumption.

**Performance Management**

The Council recognises that it will be important to monitor the delivery of the actions contained in the Action Plan. At an officer level, six-monthly update reports on progress against the key actions will be provided to the Council's Environmental Strategy Group. At an elected Member level, annual reports on progress against the key actions will be made to the Executive Councillor at the Environment Scrutiny Committee of the Council.

We will regularly monitor our energy and fuel use and report performance against the $CO_2$ reduction target set by the Carbon Management Plan to the Environmental Strategy Group. We have published details of Greenhouse Gas emissions on an annual basis for a number of years. We will continue to publish this information on our website annually, along with performance against our $CO_2$ reduction target.

In addition to monitoring our $CO_2$ emissions, during 2012 the Council will also be developing a system to monitor our water usage and waste production more effectively.

Regular reports will also be provided to the officers' Environmental Strategy Group highlighting progress being made by individual carbon reduction projects in the Carbon Management Plan, using a Red/Amber/Green reporting system and in particular flagging up any projects with delivery issues/ concerns.

Progress against individual projects and the programme as a whole will be reported to our Strategy and Resources Scrutiny Committee on an annual basis.

**Cambridge City Council**
**October 2012**

## Appendix A – Action Plan

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| **Objective 1 - To reduce the Council's CO2 emissions and manage the risks to its staff property and functions from climate change.** | | | | |
| **Reducing $CO_2$ emissions and addressing the causes of climate change** | | | | |
| 1 | Reduce the Council's carbon footprint through measures identified in the Carbon Management Plan, including:<br>a) Installation of solar thermal technology in council properties<br>b) Roll out of voltage optimisation technology across 10 council sites<br>c) Installation of more efficient lighting in council buildings and car parks, including lighting controls, LED lighting, motion control sensors<br>d) Installation of efficient heating, ventilation and air conditioning systems, including condensing boilers, optimum start controls, timers on boilers and heating sequencing.<br>e) Improvements to the energy efficiency of fleet vehicles and implementing the findings of the route optimisation exercise for refuse vehicles<br>f) Improvements to the Council's contract management processes to ensure that contractors deliver sustainability requirements of contracts | 2012/13-2015/16 | a) Arts and Recreation/Estates and Facilities<br>b) Corporate Strategy/Arts and Recreation<br>c) Specialist Services/Estates and Facilities<br>d) Estates and Facilities<br>e) Refuse and Environment<br>f) Debbie Quincey | a) Ian Ross/Sam Griggs<br>b) Clare Palferman and Sally Pidgeon/Ian Ross<br>c) Sean Cleary (car parks)/Jim Stocker (Council buildings)<br>d) Jim Stocker<br>e) Dave Cox/Chloe Hipwood<br>f) Debbie Quincey |
| **Managing climate change risks** | | | | |
| 2 | Through the Office Accommodation Strategy ensure that:<br>a) temperatures in existing council buildings are controlled<br>b) if Council staff are relocated to new office buildings, risks to staff from higher temperatures and flooding are mitigated as part of building design | 2012-2014 | Human Resources/ Estates and Facilities/ Planning | Paul Parry/Jim Stocker/Simon Bunn |
| 3 | Explore opportunities for using developer contributions to install sustainable drainage measures in Council-owned open spaces; where such projects are mutually beneficial and increase the amenity or biodiversity value of the open space. | Ongoing | Planning/ Streets and Open Spaces | Simon Bunn/Alistair Wilson |
| 4 | Ensure that where possible sustainable drainage measures and permeable surfaces are installed as part of refurbishment of Council property or construction of any new buildings | Ongoing | Planning | Simon Bunn |
| 5 | Replace shrubs in City Council owned and managed open spaces with drought resistant species when they come to the end of their natural life | Ongoing | Streets and Open Spaces | Alistair Wilson |
| 6 | Explore opportunities to include maintenance of trees and other green infrastructure once developments have finished within the scope of planning obligations. | Ongoing | Streets and Open Spaces | Matthew Magrath |
| 7 | Consider potential challenges to native wildlife associated with climate change as part of review of Nature Conservation Strategy and adjust related management plans for | 2016 | Streets & Open Spaces | Guy Belcher |

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| | Local Nature Reserves and other city green spaces to be adjusted accordingly. | | | |
| 8 | Ensure that planting of trees and other urban greening measures are included as part of the refurbishment of Council property where appropriate. | Ongoing | Streets and Open Spaces | Matthew Magrath |
| **Objective 2 - To set high standards and assist residents, businesses and organisations to reduce their carbon emissions and manage climate risks.** | | | | |
| **Reducing $CO_2$ emissions and addressing the causes of climate change** | | | | |
| 9 | Improve the energy efficiency of Council-owned homes and reduce the energy consumption of tenants through ongoing improvement work to:<br>a) meet the Decent Homes Standard.<br>b) increase the SAP rating of properties.<br>c) deliver the Fuel Poverty Reduction Plan | Ongoing - revised annual targets to be developed through Home Energy Strategy | Estates and Facilities | Sam Griggs |
| 10 | Inform residents of the energy efficiency of properties through publishing Energy Performance Certificates for Council properties | Ongoing - revised annual targets to be developed through Home Energy Strategy | Estates and Facilities | Sam Griggs |
| 11 | Encourage and support private landlords, housing associations, homeowners, private tenants to improve the energy efficiency of properties by:<br>a) identifying homes that would benefit from further insulation through the Heatseekers initiative<br>b) increase take-up of the national increase take up of subsidies available through the Carbon Emissions Reduction Target (CERT) scheme for loft and cavity wall insulation by providing grant funding to cover the £150 contribution that residents would otherwise have to make.<br>c) providing grants to landlords applying to the landlord accreditation scheme to bring properties up to D standard<br>d) maximising opportunities available through the Green Deal<br>e) producing guidance on making energy efficiency improvements to properties in conservation areas | a) March 2013<br>b) April-Dec 2012<br>c) March 2013<br>d) March 2013<br>e) From Autumn 2012 onwards | Refuse and Environment | a) Justin Smith<br>b) Justin Smith<br>c) Emma Barker<br>d) Jo Dicks<br>e) Justin Smith |
| 12 | Conduct engagement, communications and awareness raising campaigns with residents businesses on:<br>a) energy efficiency issues across all housing tenures<br>b) recycling and waste reduction and prevention, through signposting businesses to | b) 2013/14<br>a), c) and d) Ongoing; | a) Estates and Facilities/ Refuse and Environment | a) Sam Griggs/Justin Smith<br>b) Jen Robertson<br>c) Clare Rankin |

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| | advice and information and conducting door-knocking campaigns and events with assistance from volunteer Recycling Champions thereby increasing valuable face to face contact with residents<br>c) cycling and walking opportunities | | b) Refuse and Environment<br>c) Streets and Open Spaces | |
| 13 | Explore opportunities to further increase participation in recycling schemes (including incentive schemes and real-time IT systems in refuse vehicles) and implement appropriate systems in order to help meet our target of recycling 50-55% of our waste by 2015-16. | 2015/16 | Refuse and Environment | Jen Robertson/ Michael Parsons |
| 14 | Explore opportunities to increase the types of material that can be recycled. | 2014/15 | Refuse and Environment | Jen Robertson |
| 15 | Setting high sustainability standards the design and construction of new developments through identifying opportunities in the development of the Cambridge Local Plan to ensure that:<br>a) meets recognised sustainability standards, including at least Level 4 of the Code for Sustainable Homes for residential developments or BREEAM or Zero Carbon Buildings for non-residential developments<br>b) further promotes waste minimisation and recycling, including the minimisation of construction waste<br>c) meets at least the level 4 water efficiency standards of the Code for Sustainable Homes<br>d) addresses high temperature, subsidence and high wind risks | Spring 2014 | Planning | Emma Davies |
| 16 | Ensure that all new affordable housing is constructed to at least Level 4 of the Code for Sustainable Homes | Ongoing | Strategic Housing | Alan Carter |
| 17 | Continuing to set high standards for renewable energy provision and actively engaging with developers to secure renewable energy as part of planning agreements for major new developments. | Ongoing | Planning | Emma Davies |
| 18 | Ensure that developments comply with climate change-related conditions of their planning consent or Section 106 agreements | Ongoing | Planning | Patsy Dell |
| 19 | Identify opportunities in the development of the Cambridge Local Plan to minimise traffic generation and promote public transport, cycling and walking | Spring 2014 | Planning | Matthew Bowles |
| 20 | Implement a four year programme of improvements to the quality of existing bus shelters and install new bus shelters | 2014/15 | Planning | Andrew Preston |

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| 21 | Explore options for installing new technology in Council car parks which will deliver climate change benefits, including:<br>a) installing ticket-less and cash-less systems in car parks, which will reduce emissions from queuing cars<br>b) encouraging the take-up of charging points for electric vehicles in Council car parks<br>c) using specialist mechanical cleaning techniques in car parks, which will reduce the build up of carbon dust | 2013/14 | Specialist Services | Paul Necus |
| 22 | Explore the potential for emissions-based charging for non-season ticket holders in the Grand Arcade car park | 2014/15 | Specialist Services | Paul Necus |
| 23 | Explore opportunities to:<br>a) negotiate "green lease" clauses into standard leases with new short-term tenants of Council-owned offices, industrial and retail premises.<br>b) negotiate variations to existing leases and/or use a model form of Memorandum of Understanding (MoU) between the landlord and tenant.<br>The “green lease” clauses and MoU would set out additional provisions where the landlord and tenant undertake specific responsibilities/obligations relating to the sustainable operation of property, which could include provisions on energy efficiency, reducing water consumption, recycling and waste reduction. | Ongoing | Property Services | Philip Doggett |
| **Managing climate change risks** | | | | |
| 24 | Consult on the inclusion of a specific policy on climate change adaptation measures in the revised Local Plan, including:<br>• maximising opportunities for natural ventilation strategies through innovative building design and construction.<br>• reducing the impacts of higher temperatures through the use of ‘cool’ building materials.<br>• reducing flood risk and aiding urban cooling through water sensitive urban design and landscaping features.<br>• Considering setting a tree canopy cover requirement for new developments.<br>• Aiding urban cooling by protecting, enhancing and expanding green spaces. | April 2013 | Planning Policy | Sara Saunders |
| 25 | Encourage private developers to install sustainable drainage measures and permeable surfaces as part of new developments | Ongoing | Planning | Simon Bunn |
| 26 | Provide advice to residents, businesses and other organisations on how tree planting can help the City adapt to a changing climate | Ongoing | Streets and Open Spaces | Matthew Macgrath |
| **Objective 3 - To work in partnership with, influence and learn from other organisations to address the causes and effects of climate change** | | | | |

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| **Reducing $CO_2$ emissions and addressing the causes of climate change** | | | | |
| 27 | Build the capacity of voluntary and community groups to undertake activities which address climate change and sustainability issues, for example through:<br>a) providing an annual Sustainable City Grants programme<br>b) providing cycling and walking promotion grants<br>c) supporting and facilitating bids for external funding | Ongoing | a) and c) Community Development/ Corporate Strategy<br>b) Streets and Open Spaces | a) and c) Jackie Hanson/Helen Brookes<br>b) Clare Rankin |
| 28 | Working with central Government, neighbouring local authorities, the voluntary sector, businesses and communities through the Cambridgeshire Renewables Infrastructure Framework (CRIF) to deliver low carbon infrastructure. This will include exploring and exploiting innovative funding arrangements, potentially including the Carbon Offset Fund/Community Energy Fund, Community Infrastructure Levy and Green Bank. | 2016 | Planning/Corporate Strategy | Emma Davies/Andrew Limb |
| 29 | Work with partner organisations including the University of Cambridge, Anglia Ruskin University and the private sector to develop options for a commercially viable district heating scheme | 2012/13 | Environment Department | Simon Payne/Emma Davies |
| 30 | Work with neighbouring authorities and other stakeholders to explore the potential for low carbon living in Cambridgeshire through the Low Carbon Hub | 2016 | Corporate Strategy | Andrew Limb |
| 31 | Work with the University of Cambridge, the private sector and other stakeholders in the Cambridge Retrofit project to explore a model for financing and delivering energy efficiency improvements to existing properties in Cambridge over the next 30 years | 2013 | Refuse and Environment | Jo Dicks |
| 32 | Work with partners to provide a new joint use Community Centre at Clay Farm to serve the Southern Fringe development. The Centre will provide community room, a health centre and library facilities and will be built to BREEAM excellent standards as a minimum. | 2015 | Corporate project lead by Strategic Housing | Alan Carter |
| 33 | Ensure that the sale of City Council land at Clay Farm includes conditions that any development on the site should be of quality design and a sustainability exemplar. This will be achieved through a Development Agreement, with the City Council providing 50% Affordable Housing. | 2012 | Corporate project lead by Strategic Housing | Alan Carter/Sabrina Walston |
| 34 | Explore the potential for the delivery of exemplar sustainable design and construction schemes as part of any future disposals of City Council land, balancing this against other objectives for our land. | Ongoing as land disposals come up for consideration | Property Services | Head of Property |
| 35 | Explore with partner organisations the potential for procuring a joint energy contract with associated sustainability criteria | 2012/13 | Estates and Facilities/ Procurement | Jim Stocker/Debbie Quincey |
| 36 | Continue to support the development of measures which deliver carbon reductions as part of the Cambridge Area Transport Strategy | 2013 | Planning | Matthew Bowles |

| No. | Action | Completion date | Service | Lead Officer |
|---|---|---|---|---|
| 37 | Work jointly with the County Council to implement an agreed programme of improvements to cycling facilities and infrastructure in Cambridge, including cycling parking and new routes. | 2014 | Planning | Clare Rankin |
| 38 | Work with bus operators and partners to support improvements to local bus services, including through targeted subsidies and higher emissions standards | Rolling improvements across the timescale of the strategy | Planning | Matthew Bowles |
| 39 | Work with the County Council to explore opportunities to create on-street spaces for car clubs in Cambridge | Ongoing | Planning | Matthew Bowles |
| **Managing climate change risks** | | | | |
| 40 | Work with partners in the Cambridgeshire Flood Risk management partnership to manage climate change-related flood risks | Ongoing | Planning | Simon Bunn |
| 41 | Contribute to County-wide planning advice on minimising surface water flood risk and incorporate this into planning policy | Spring 2014 | Planning | Simon Bunn |
| 42 | Work with members of the Cambridgeshire Resilience Forum to ensure that plans are in place to adapt to climate change risks (including severe weather, increased temperatures and flooding) | Ongoing | Human Resources | Paul Parry |
| 43 | Working with neighbouring authorities, landowners and wildlife organisations to protect, enhance and restore a network of healthy wildlife habitats. This will involve appropriate land management, advice to outside groups and maximising improvements through the planning process. | Ongoing | Streets and Open Spaces | Guy Belcher |
| 44 | Explore the capacity of voluntary and community group to undertake climate change adaptation projects with respect to tree planting | Ongoing | Streets and Open Spaces | Matthew Macgrath |