

Climate Change Risk Assessment & Management Plan



December 2009

Executive Summary

The Cambridge Climate Change Strategy & Action Plan¹ includes an aim to “ensure that climate change risks to Cambridge are appropriately identified, assessed, communicated and managed”. The performance of the City Council in delivering this aim is measured by national indicator 188: Planning to adapt to climate change, and is also included within the Use of Resources assessment undertaken by the Audit Commission.

The **purpose** of this document is to identify the actions necessary to ensure the City Council effectively manages the climate change risks to its people, property, assets and functions and achieves the target level of performance for the climate change adaptation national indicator 188.

This climate change risk assessment has the following 5 **objectives**.

1. Identify the likelihood and severity of present and future climate change risks.
2. Identify the consequences of climate change risks for Cambridge and Cambridge City Council.
3. Assess and prioritise the climate change risks.
4. Identify and assess options for managing climate change risks.
5. Identify priority actions for managing climate change risks to Cambridge City Council.

The **methodology** used to undertake the corporate climate change risk assessment incorporates the following key features.

- It complies with guidance published by the UK Climate Impacts Programme (UKCIP)².
- It adopts the same scoring criteria as the Community Risk Register for climate change risks to Cambridge.
- It adopts the same scoring criteria as the Corporate Risk Register for climate change risks to Cambridge City Council.

¹ www.cambridge.gov.uk/climatechange

² www.ukcip.org.uk

The risk assessment incorporates the results of the **Cambridgeshire Local Climate Impacts Profile** completed in April 2009 which identified socio-economic impacts of extreme weather events in the county between 2000 and 2006.

Assessment of future likelihood of extreme weather events incorporated output from the **UK Climate Projections** published in June 2009. The key points from the assessment for Cambridge are as follows.

1. Annual rainfall of about the same amount as present up to the 2080s³.
2. Drier summers, with 7% less summer rainfall by the 2020s⁴ and 26% less by the 2080s.
3. Wetter winters, with 7% more winter rainfall by the 2020s and 27% more by the 2080s.
4. More intense rainfall during autumn, winter and spring, with rainfall on the wettest winter days 6% higher by the 2020s and 24% higher by the 2080s.
5. Higher temperatures for all seasons throughout the year, with summer temperatures 1.5 degrees higher by the 2020s and 4 degrees higher by the 2080s.
6. Higher temperature extremes for all seasons throughout the year, with the warmest summer days 1.5 degrees higher by the 2020s and 4 degrees higher by the 2080s.

The priority climate change **threats and opportunities to Cambridge** in the 2020's (2010-2039) are assessed to be as follows. Please note that the threats are assessed to be higher priority (very high) than the opportunities (medium).

Threats	Opportunities
<p>Very High</p> <ol style="list-style-type: none"> 1. Lower water quality standards & increased treatment costs 2. Increased pressure on reducing water availability 	<p>Medium</p> <ol style="list-style-type: none"> 1. Increased commercial opportunities for warm weather goods & services (e.g. BBQ's, ice creams, salads)

³ 2020s = the thirty year period 2010-2039

⁴ 2080s = the thirty year period 2070-2099

Threats	Opportunities
<ul style="list-style-type: none"> 3. Reduction in biodiversity due to lack of habitat 4. Increased public health & safety risk from vector-borne diseases 5. Increase in invasive species forcing out native species 6. Flood disruption to work due to supply chain, utility & travel disruption and staff absenteeism 	<ul style="list-style-type: none"> 2. Reduced winter energy demand for heating 3. Potential for increased food crop production 4. Winter public health & safety benefit (slips, accidents) 5. Less winter damage & disruption to transport infrastructure (accidents, icing of rails & points) 6. Less winter disruption to work due to staff absence, travel delay, ice & snow

The priority climate change **threats and opportunities to Cambridge City Council** in the 2020's (2010-2039) are assessed to be as follows. Please note that the threats are assessed to be higher priority (high to very high) than the opportunities (low to medium).

Threats	Opportunities
<p>Very High</p> <ul style="list-style-type: none"> 1. Delivery of growth agenda threatened 2. Increased demand for emergency response to flood incidents 3. Flood recovery, repair & insurance costs for Council property 4. Achievement of corporate strategic objectives regarding sustainable development threatened <p>High</p> <ul style="list-style-type: none"> 5. Flood restoration costs for Council managed 	<p>Medium</p> <ul style="list-style-type: none"> 1. Reduced gas costs associated with providing a comfortable working environment <p>Low</p> <ul style="list-style-type: none"> 2. Reduced winter absentee rates and health & safety incidents 3. Reduced winter absentee rates and demand for bereavement services 4. Support local food growing (e.g. allotments)

Threats	Opportunities
<ul style="list-style-type: none"> riparian sites and drainage clearance 6. Service flood disruption and staff absenteeism 7. Equipment failure (e.g. servers) due to maximum temperature exceeded 8. Increased electricity costs associated with providing a comfortable working environment 9. Increased demand for environmental health services 10. Increased fire risk to Council staff & property 11. Achievement of the City Council Air Quality Strategy objectives threatened 	

UKCIP guidance was used to generate 183 **options** for managing the climate change risks to Cambridge City Council which were assessed against the following criteria.

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|----------------------------|-------------------------|
| 1. No regrets | 7. Proportionate? |
| 2. Low regrets | 8. Cost effective? |
| 3. Win-win | 9. Achievable? |
| 4. Flexible / adaptive | 10. Long lead-in? |
| 5. Additional? | 11. No policy conflict? |
| 6. Council responsibility? | 12. Resilience? |

The priority climate change risk management actions for Cambridge City Council identified by the options assessment are as follows.

Action	How	Who	When
1. Manage corporate risks associated with floods, heat waves and drought orders through the Corporate Risk Register .	Corporate Risk Register	Risk Management	2009-10 & ongoing
2. Provide guidance and support to Council services on the nature of climate change risks to their service and the options for their control.	Risk Management advice	Policy & Projects	2010-11
3. Assess climate change risks during the development of Council plans, projects, budget bids and savings , including: <ul style="list-style-type: none"> 3.1 Local Development Framework 3.2 Nature Conservation Strategy & Local Natural Green Space Management Plans 3.3 Air Quality Strategy 3.4 Parks & Open Spaces Strategy 3.5 Arboriculture Strategy 3.6 Office Accommodation Strategy 3.7 Council projects 	Sustainability appraisal Risk assessment Risk assessment Risk assessment Risk assessment Risk assessment Project Management	Policy & Projects Policy & Projects Environmental Services Active Communities Policy & Projects Property & Building Services Strategy &	Determined by LDF timetable Next revision Next revision Next revision 2009-10 2010-11 2009-10

Action	How	Who	When
3.8 Budget bids & savings	Guidance Climate Change Rating	Partnerships Policy & Projects	Yearly
4. Fund measures which manage the climate change risks (flooding, heat waves, drought orders) to Council people, property, assets and functions.	Climate Change Fund	Policy & Projects	2009-11
5. Provide weather data to enable the monitoring of relationships between weather and existing Council data collection regarding the costs, demand and delivery of services, including: 5.1 staff attendance 5.2 electricity and gas consumption 5.3 internal temperatures (including critical assets e.g. server rooms) 5.4 Environmental Health enquiries (e.g. odours, food hygiene) 5.5 cleaning and maintenance costs for trees, parks and open spaces 5.6 air quality 5.7 Council drainage culverts 5.8 H&S incidents (e.g. heat stress)	Climate Change Champions	Policy & Projects	2010-11

Action	How	Who	When
6. Address the strategic climate change risks to Cambridge in partnership with other public bodies, private and community sectors, including: <ul style="list-style-type: none"> <li>6.1 Cambridge City & South Cambridgeshire Improving Health Partnership <li>6.2 Cambs & Peterborough Local Resilience Forum <li>6.3 Love Cambridge Partnership <li>6.4 Cambridge Community Safety Partnership <li>6.5 Cambs Environmental Sustainability Partnership (incl. Floods, Biodiversity and Climate Change Groups) 		Environmental Services Emergency Planning City Centre Management Strategy & Partnerships Policy & Projects	2010-11 2009-10 2010-11 2010-11 2009-10

The Council's corporate climate change risk assessment will be **reviewed** in light of the following circumstances.

1. significant new evidence regarding the likelihood or severity of climate change risks in Cambridge.
2. revision to the target level of performance for national indicator 188 (Planning to adapt to climate change) by Cambridge City Council.
3. recommendations resulting from an audit of the Council's management of climate change risks.

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