

# Climate Change Risk Assessment & Management Plan



December 2009

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## Appendix A Cambs & Peterborough Community Risk Register – Risk Scoring Guidance

Likelihood	Level	Likelihood over 5 Years	Likelihood over 5 Years
Negligible	1	Greater than 0.005%	Greater than 1 in 20,000 chance
Rare	2	Greater than 0.05%	Greater than 1 in 2,000 chance
Unlikely	3	Greater than 0.5%	Greater than 1 in 200 chance
Possible	4	Greater than 5%	Greater than 1 in 20 chance
Probable	5	Greater than 50%	Greater than 1 in 2 chance

Severity	Level	Category of Impact	Description of Impact
Insignificant	1	Health	<ul style="list-style-type: none"> <li>Insignificant number of injuries or impact on health</li> </ul>
		Social	<ul style="list-style-type: none"> <li>Insignificant number of persons displaced and significant personal support required</li> <li>Insignificant disruption to community services, including transport services and Infrastructure</li> </ul>
		Economic	<ul style="list-style-type: none"> <li>Insignificant impact on local economy</li> </ul>
		Environment	<ul style="list-style-type: none"> <li>Insignificant impact on environment</li> </ul>
Minor	2	Health	<ul style="list-style-type: none"> <li>Small number of people affected, no fatalities, and small number of minor injuries with first aid treatment</li> </ul>
		Social	<ul style="list-style-type: none"> <li>Minor damage to properties</li> <li>Minor displacement of a small number of people for &lt; 24 hours and minor personal support required</li> <li>Minor localised disruption to community services of infrastructure &lt; 24 hours</li> </ul>
		Economic	<ul style="list-style-type: none"> <li>Negligible impact on local economy and cost easily absorbed</li> </ul>
		Environment	<ul style="list-style-type: none"> <li>Minor impact on environment with no lasting effects</li> </ul>
Moderate	3	Health	<ul style="list-style-type: none"> <li>Sufficient number of fatalities with some casualties requiring hospitalisation and medical treatment and activation of MAJAX, the automated intelligent alert notification system, procedures in one or more hospitals</li> </ul>

Severity	Level	Category of Impact	Description of Impact
		Social	<ul style="list-style-type: none"> <li>• Damage that is confined to a specific location, or to a number locations, but requires additional resources</li> <li>• Localised displacement of &gt; 100 people for 1-3 days</li> <li>• Localised disruption to infrastructure and community services</li> </ul>
		Economic	<ul style="list-style-type: none"> <li>• Limited impact on local economy with some short-term loss of production, with possible a additional clean-up costs</li> </ul>
		Environment	<ul style="list-style-type: none"> <li>• Limited impact on environment with short-term or long-term effects</li> </ul>
Significant	4	Heath	<ul style="list-style-type: none"> <li>• Significant number of people in affected areas with multiple fatalities, multiple serious or extensive injuries, significant hospitalisation and activation of MAJAX procedures across a number of hospitals</li> </ul>
		Social	<ul style="list-style-type: none"> <li>• Significant damage that requires support for local responders with external resources 100 to 500 people in danger and displaced for longer than 1 week.</li> <li>• Local responders require external resources to deliver personal support</li> <li>• Significant impact on and possible breakdown of delivery of some community services</li> </ul>
		Economic	<ul style="list-style-type: none"> <li>• Significant impact on local economy with medium-term loss of product</li> <li>• Significant extra clean-up and recovery costs</li> </ul>
		Environment	<ul style="list-style-type: none"> <li>• Significant impact on environment with medium-term to long-term effects</li> </ul>
Catastrophic	5	Heath	<ul style="list-style-type: none"> <li>• Very large numbers of people in affected area(s) impacted with significant numbers of fatalities, large number of people requiring hospitalisation with serious injuries with longer-term effects</li> </ul>
		Social	<ul style="list-style-type: none"> <li>• Extensive damage to properties and built environment in affected area requiring major Demolition</li> <li>• General and widespread displacement of more than 500 people for prolonged duration and extensive personal support required</li> <li>• Serious damage to infrastructure causing significant disruption to, or loss of, key services for prolonged period. Community unable to function without significant support</li> </ul>
		Economic	<ul style="list-style-type: none"> <li>• Serious impact on local and regional economy with some long-term, potentially permanent, loss of production with some structural change <b>Extensive clean-up and recovery costs</b></li> </ul>
		Environment	<ul style="list-style-type: none"> <li>• Serious long-term impact on environment and/or permanent damage</li> </ul>

**Appendix B Cambridge climate change risks & opportunities**

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Dry1	Drier summers	3	4	4	Reduced summer river flows	Negative	Environment	Lower water quality standards	4	Reduced river and wetland ecology	12	16	16
Dry2	Drier summers	3	4	4	Increased concentration of pollutants in drains, sewers & rivers	Negative	Environment	Lower water quality standards & increased treatment costs	5	Higher water bills	15	20	20
Dry3	Drier summers	3	4	4	Increased probability of hosepipe bans & drought orders	Negative	Social	Disruption to domestic water dependent activities (e.g. cleaning, washing)	2	Potential public health & safety risk	6	8	8
Dry4	Drier summers	3	4	4	Increased probability of hosepipe bans & drought orders	Negative	Economic	Disruption to water reliant activities & processes (e.g. swimming pools, cleaning & washing).	3	Reduced demand & revenue, particularly for leisure industry	9	12	12
Dry5	Drier summers	3	4	4	Reduced flushing of drains and sewers	Negative	Social	Increased localised flood risk	2	Secondary social, health & economic consequences	6	8	8

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Dry6	Drier summers	3	4	4	Increased water consumption (esp. gardening)	Negative	Environment	Increased pressure on reducing water availability	4	Reduced water quality standards & ecological stress on moisture dependant species & habitats	12	16	16
Dry7	Drier summers	3	4	4	Ecological stress on drought intolerant species & habitats	Negative	Environment	Reduction in biodiversity due to lack of habitat	4	Ecological stress & loss of amenity	12	16	16
Dry8	Drier summers	3	4	4	Insufficient water supplies for new development	Negative	Social	Potentially limits development	3	Limits ability to meet demands for growth	9	12	12
Dry9	Drier summers	3	4	4	Drier soils	Negative	Households	Subsidence	2	Potential damage to properties and infrastructure with associated service disruption	6	8	8

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Heat1	Higher temperature extremes (heat waves)	4	5	5	Increased heat stress & other hot weather illnesses	Negative	Health	Public health & safety risk	3	Increased demand for emergency & healthcare services	12	15	15
Heat10	Higher temperature extremes (heat waves)	4	5	5	Increase demand for tourism & leisure services	Positive	Economic	Increased commercial opportunities for warm weather goods & services (e.g. BBQ's, ice creams, salads)	-2	Reduced demand for other goods & services	-8	-10	-10
Heat11	Higher temperature extremes (heat waves)	4	5	5	Increased water consumption	Negative	Environment	Increased pressure on reducing water availability	4	Reduced water quality standards & ecological stress on moisture dependant species & habitats	16	20	20
Heat2	Higher temperature extremes (heat waves)	4	5	5	Reduced air quality	Negative	Health	Public health & safety risk, particularly the elderly & those with respiratory problems	2	Increased demand for emergency & healthcare services	8	10	10

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Heat3	Higher temperature extremes (heat waves)	4	5	5	Increased fire risk	Negative	Health	Public health & safety risk	2	Increased demand for emergency response & support services	8	10	10
Heat4	Higher temperature extremes (heat waves)	4	5	5	Increased incidence of food poisoning	Negative	Health	Public health & safety risk	2	Increased demand for healthcare & public services	8	10	10
Heat5	Higher temperature extremes (heat waves)	4	5	5	Increase in burglaries	Negative	Social	Property loss or damage	2	Increased demand for public services & repair, replacement & insurance costs	8	10	10
Heat6	Higher temperature extremes (heat waves)	4	5	5	Increased internal building temperatures	Negative	Economic	Increased summer energy & water demand for cooling & refrigeration	3	Increased energy costs & system load	12	15	15
Heat7	Higher temperature extremes (heat waves)	4	5	5	Equipment & infrastructure temperature thresholds exceeded	Negative	Social	Disruption to road and rail routes due to road melt & rail buckling	3	Service disruption, repair and recovery	12	15	15

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Heat8	Higher temperature extremes (heat waves)	4	5	5	Equipment & infrastructure temperature thresholds exceeded	Negative	Economic	Disruption to work due to travel disruption, equipment failure (e.g. servers), staff absenteeism	3	Supply chain disruption	12	15	15
Heat9	Higher temperature extremes (heat waves)	4	5	5	Increase demand for tourism & leisure services	Positive	Economic	Increased use of public space	-1	Increased demand on public services (e.g. parks maintenance and cleaning)	-4	-5	-5
Temp1	Higher seasonal temperatures	4	5	5	Increase in vector-borne diseases (incl. Reduced winter die-off)	Negative	Health	Public health & safety risk	4	Increased demand for healthcare services	16	20	20
Temp10	Higher seasonal temperatures	4	5	5	Species migration	Negative	Environment	Reduction in biodiversity due to lack of habitat	4	Ecological stress & loss of amenity	16	20	20
Temp11	Higher seasonal temperatures	4	5	5	Species migration	Negative	Environment	Increase in invasive species forcing out native species	4	Ecological stress & loss of amenity	16	20	20

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Temp12	Higher seasonal temperatures	4	5	5	Longer growing season	Negative	Environment	Increased need for vegetation management	2		8	10	10
Temp13	Higher seasonal temperatures	4	5	5	Longer growing season	Positive	Environment	Potential for increased food crop production	-2		-8	-10	-10
Temp14	Higher seasonal temperatures	4	5	5	Reduced cold weather illnesses (potentially)	Positive	Health	Public health & safety benefit	-1	Reduced demand for healthcare services	-4	-5	-5
Temp15	Higher seasonal temperatures	4	5	5	Reduced probability of frost, ice & snow	Positive	Health	Public health & safety benefit (slips, accidents)	-2	Reduced demand for emergency & healthcare services	-8	-10	-10
Temp16	Higher seasonal temperatures	4	5	5	Reduced probability of frost, ice & snow	Positive	Social	Less damage & disruption to transport infrastructure (accidents, icing of rails & points)	-2	Reduced demand for winter road gritting	-8	-10	-10
Temp17	Higher seasonal temperatures	4	5	5	Reduced probability of frost, ice & snow	Positive	Economic	Less disruption to work due to staff absence, travel delay, ice & snow	-2		-8	-10	-10

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Temp2	Higher seasonal temperatures	4	5	5	Increase in unpleasant odours	Negative	Health	Public nuisance	1	Increased complaints and response from utilities and local authorities	4	5	5
Temp3	Higher seasonal temperatures	4	5	5	Increase in vermin & pests (incl. Reduced winter die-off)	Negative	Health	Public health & safety risk	2	Increased complaints and response from local authorities	8	10	10
Temp4	Higher seasonal temperatures	4	5	5	Increased internal building temperatures	Negative	Economic	Increased summer energy demand for cooling & refrigeration	2	Increased energy demand & costs	8	10	10
Temp5	Higher seasonal temperatures	4	5	5	Increased internal building temperatures	Positive	Economic	Reduced winter energy demand for heating	-2	Reduced energy demand & costs	-8	-10	-10
Temp6	Higher seasonal temperatures	4	5	5	Increase demand for tourism & leisure services	Positive	Economic	Increased use of public space	-1	Increased demand on public services (e.g. parks maintenance and cleaning)	-4	-5	-5

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Temp7	Higher seasonal temperatures	4	5	5	Increase demand for tourism & leisure services	Positive	Economic	New commercial opportunities	-2	Reduced demand for other goods & services	-8	-10	-10
Temp8	Higher seasonal temperatures	4	5	5	Increased evapo-transpiration	Negative	Environment	Reduced water availability	3	Ecological stress on moisture dependant species & habitats	12	15	15
Temp9	Higher seasonal temperatures	4	5	5	Increased frequency of toxic algal blooms	Negative	Environment	Reduced water quality standards & increase in fish kills	3	Increased regulatory response and costs	12	15	15
Wet1	Wetter winters & more intense rainfall	3	4	4	Increased flood risk (river & surface water)	Negative	Health	Public health & safety risk	3	Increased demand for emergency response & support services	9	12	12
Wet2	Wetter winters & more intense rainfall	3	4	4	Increased flood risk (river & surface water)	Negative	Social	Disruption to transport, power, communications & water services	3	Public health & safety risk	9	12	12

ID	Climate/ weather event	Likelihood (1-5)			Impact/ opportunity	Positive/ negative	Risk Category	Primary consequence	Severity (1-5)	Secondary consequence	Risk score (1-25)		
		2020s	2050s	2080s							2020s	2050s	2080s
Wet3	Wetter winters & more intense rainfall	3	4	4	Increased flood risk (river & surface water)	Negative	Social	Property damage	3	Increased recovery, repair & insurance costs	9	12	12
Wet4	Wetter winters & more intense rainfall	3	4	4	Increased flood risk (river & surface water)	Negative	Economic	Disruption to work due to supply chain, utility & travel disruption and staff absenteeism	4	Potential business failures	12	16	16
Wet5	Wetter winters & more intense rainfall	3	4	4	Increased flood risk (river & surface water)	Negative	Environment	Morphological changes to riverside habitats	3	Costs of restoration	9	12	12

## Appendix C Cambridge City Council Corporate Risk Register – Risk Scoring Guidance

LIKELIHOOD	DESCRIPTION	SCORE
EXTREMELY REMOTE	Less than 5% likely to occur in the next twelve months	1
REMOTE	Less than 20% likely to occur in the next twelve months	2
PROBABLE	Less than 40% likely to occur in the next twelve months	3
VERY PROBABLE	Less than 80% likely to occur in the next twelve months	4
EXTREMELY PROBABLE	Over 80% likely to occur in the next twelve months	5

***NB: Scores should never be set at zero.***

SEVERITY	DESCRIPTION	SCORE
NEGLIGIBLE	<ul style="list-style-type: none"> <li>No impact outside single objective</li> <li>Financial loss less than £5000</li> <li>No adverse publicity</li> <li>No serious illness or injury</li> </ul>	1
LOW	<ul style="list-style-type: none"> <li>Some impact on other objectives</li> <li>Financial loss up to £50,000</li> <li>Minor regulatory consequences</li> <li>Possible equipment damage, illness or injury (with impairment lasting between 3 days and 1 month)</li> </ul>	2
MEDIUM/ HIGH/ SIGNIFICANT	<ul style="list-style-type: none"> <li>Impact on many other processes</li> <li>Financial loss up to £300,000</li> <li>Local adverse publicity</li> <li>Regulatory sanctions, interventions, public interest reports</li> <li>Capable of causing Major Injury (Impairment lasting more than 1 month)</li> </ul>	3
VERY HIGH	<ul style="list-style-type: none"> <li>Impact on strategic level objectives</li> <li>Financial loss up to £500,000</li> <li>National publicity</li> <li>Strong Regulatory sanctions</li> <li>One death or permanent disablement, or multiple major injuries</li> </ul>	4
CATASTROPHIC/ EXTREME	<ul style="list-style-type: none"> <li>Impact at strategic level</li> <li>Financial loss over £500,000</li> <li>National adverse publicity</li> <li>Central Government intervention</li> <li>Multiple deaths</li> </ul>	5

## Appendix D Cambridge City Council climate change risks & opportunities

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Dry6 Heat11 Temp8	4	5	5	Threat1	Achievement of corporate strategic objectives regarding sustainable development threatened	4	Increased water consumption (esp. gardening) Increased water consumption Increased evapo-transpiration	Increased pressure on reducing water availability Reduced water availability	External impact	16	20	20	Severity score of 4 reflects impact on strategic level objectives
Heat8	4	5	5	Threat2	Equipment failure (e.g. servers) due to maximum temperature exceedance	3	Equipment & infrastructure temperature thresholds exceeded	Disruption to work due to travel disruption, equipment failure (e.g. servers), staff absenteeism	External impact	12	15	15	
Heat6 Temp4	4	5	5	Threat3	Increased electricity costs associated with providing a comfortable working environment	3	Increased internal building temperatures	Increased summer energy & water demand for cooling & refrigeration	External impact	12	15	15	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Temp1 Temp3	4	5	5	Threat4	Increased demand for environmental health services	3	Increase in vector-borne diseases (incl. Reduced winter die-off)  Increase in vermin & pests (incl. Reduced winter die-off)	Public health & safety risk	External impact	12	15	15	Severity score of 3 due to potential for adverse local publicity
Temp2	4	5	5	Threat5	Increased demand for environmental health services (odours)	3	Increase in unpleasant odours	Public nuisance	External impact	12	15	15	Severity score of 3 due to potential for adverse local publicity
Heat3	4	5	5	Threat6	Increased fire risk to Council staff & property	3	Increased fire risk	Public health & safety risk	External impact	12	15	15	
Heat2	4	5	5	Threat7	Achievement of the City Council Air Quality Strategy objectives threatened	3	Reduced air quality	Public health & safety risk, particularly the elderly & those with respiratory problems	External impact	12	15	15	
Heat1	4	5	5	Threat8	Increased heat related health & safety risk to staff and tenants	2	Increased heat stress & other hot weather illnesses	Public health & safety risk	External impact	8	10	10	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Heat9 Temp6	4	5	5	Threat9	Increased costs and demand for parks & open spaces maintenance and cleaning	2	Increase demand for tourism & leisure services	Increased use of public space	External impact	8	10	10	Severity score of 2 due to additional costs >£50k
Temp1 2	4	5	5	Threat1 0	Increased costs and demand for trees, parks & open spaces maintenance	2	Longer growing season	Increased need for vegetation management	External impact	8	10	10	Severity score of 2 due to additional costs >£50k
Heat4	4	5	5	Threat1 1	Increased demand for environmental health services (food hygiene)	1	Increased incidence of food poisoning	Public health & safety risk	External impact	4	5	5	
Heat5	4	5	5	Threat1 2	Increased risk of theft from Council properties	1	Increase in burglaries	Property loss or damage	External impact	4	5	5	
Heat7	4	5	5	Threat1 3	Increased staff absenteeism due to travel disruption or child care duties	1	Equipment & infrastructure temperature thresholds exceeded	Disruption to road and rail routes due to road melt & rail buckling	External impact	4	5	5	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Dry1 Temp9	4	5	5	Threat1 4	Achievement of the City Council Nature Conservation Strategy objectives threatened	1	Reduced summer river flows Increased frequency of toxic algal blooms	Lower water quality standards Reduced water quality standards & increase in fish kills	External impact	4	5	5	Severity benchmarked with Essex Climate Change Project Report, HR Wallingford, Nov 08
Dry7 Temp1 0 Temp1 1	4	5	5	Threat1 5	Achievement of the City Council Nature Conservation Strategy objectives threatened	1	Ecological stress on drought intolerant species & habitats Species migration	Reduction in biodiversity due to lack of habitat Increase in invasive species forcing out native species	External impact	4	5	5	Severity benchmarked with Essex Climate Change Project Report, HR Wallingford, Nov 06
Dry8	3	4	4	Threat1 6	Delivery of growth agenda threatened	5	Insufficient water supplies for new development	Potentially limits development	External impact	15	20	20	
Wet1 Wet2	3	4	4	Threat1 7	Increased demand for emergency response to flood incidents	4	Increased flood risk (river & surface water)	Public health & safety risk Disruption to transport, power, communications & water services	External impact	12	16	16	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Wet3	3	4	4	Threat18	Flood recovery, repair & insurance costs for Council property	4	Increased flood risk (river & surface water)	Property damage	External impact	12	16	16	
Wet5	3	4	4	Threat19	Flood restoration costs for Council managed riparian sites and drainage clearance	3	Increased flood risk (river & surface water)	Morphological changes to riverside habitats	External impact	9	12	12	Severity benchmarked with Essex Climate Change Project Report, HR Wallingford, Nov 08
Wet4	3	4	4	Threat20	Service disruption and staff absenteeism	3	Increased flood risk (river & surface water)	Disruption to work due to supply chain, utility & travel disruption and staff absenteeism	External impact	9	12	12	
Dry4	3	4	4	Threat21	Disruption to Council water reliant activities & processes (e.g. swimming pools, vehicle washing, cleaning)	2	Increased probability of hosepipe bans & drought orders	Disruption to water reliant activities & processes (e.g. swimming pools, cleaning & washing).	External impact	6	8	8	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Dry5	3	4	4	Threat2 2	Increased demand and costs for drainage works to Council culverts	2	Reduced flushing of drains and sewers	Increased localised flood risk	External impact	6	8	8	
Dry2	3	4	4	Threat2 3	Potentially higher water bills	2	Increased concentration of pollutants in drains, sewers & rivers	Lower water quality standards & increased treatment costs	External impact	6	8	8	
Dry3	3	4	4	Threat2 4	Disruption of water supply to Council housing, sheltered housing & temporary homeless units.	1	Increased probability of hosepipe bans & drought orders	Disruption to domestic water dependent activities (e.g. cleaning, washing)	External impact	3	4	4	
Dry9	3	4	4	Threat2 5	Increased demand for Building Control services	1	Drier soils	Subsidence	External impact	3	4	4	The City Council currently receive very few if any subsidence enquiries. Geology of Cambridge is relatively good for this risk.

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Temp5	4	5	5	Opp1	Reduced gas costs associated with providing a comfortable working environment	-2	Increased internal building temperatures	Reduced winter energy demand for heating	External impact	-8	-10	-10	Opportunity lower than the risk due to differential price with electricity and continued likely demand for heating
Temp1 5 Temp1 6 Temp1 7	4	5	5	Opp2	Reduced winter absentee rates and health & safety incidents	-1	Reduced probability of frost, ice & snow	Public health & safety benefit (slips, accidents)  Less damage & disruption to transport infrastructure (accidents, icing of rails & points)  Less disruption to work due to staff absence, travel delay, ice & snow	External impact	-4	-5	-5	

ID	Likelihood			ID	City Council consequence	Severity 0-5)	Contributory		CCC Risk Category	Risk score (0-25)			Notes
	2020s	2050s	2080s				Impact/opportunity	Primary consequence		2020s	2050s	2080s	
Temp14	4	5	5	Opp3	Reduced winter absentee rates and demand for bereavement services	-1	Reduced cold weather illnesses (potentially)	Public health & safety benefit	External impact	-4	-5	-5	Low severity score reflects NHS research indicating climate change may not improve EWD index <a href="http://www.erpho.org.uk/viewResource.aspx?id=13356">http://www.erpho.org.uk/viewResource.aspx?id=13356</a>
Temp13	4	5	5	Opp4	Support local food growing (e.g. allotments)	-1	Longer growing season	Potential for increased food crop production	External impact	-4	-5	-5	
Heat10	4	5	5		n/a		Increase demand for tourism & leisure services	Increased commercial opportunities for warm weather goods & services (e.g. BBQ's, ice creams, salads)		0	0	0	
Temp7	4	5	5		n/a		Increase demand for tourism & leisure services	New commercial opportunities		0	0	0	

## Appendix E Options assessment for climate change risks

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat16	<b>Delivery of growth agenda threatened</b>	Address risk in sustainability appraisals of LDF documents	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Monitor water consumption and availability levels						No								Omit as already undertaken by water companies	No
		Seek higher CSH levels in LDF policies		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
		Include water efficiency as a strategic objective for: Cambs ESP City Council	Yes				No	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
		Include water efficiency within community environmental education activities		Yes			Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
		Address risk through Cambs ESP with Environment Agency & water companies		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
		Reduce growth targets										No		No		No	No
		Install measures to reduce reliance on mains water supply.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat17	<b>Increased demand for emergency response to flood incidents</b>	Undertake Strategic Flood Risk Assessment incorporating climate change projections	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Monitor incidents of flooding and contributing risk factors		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Include flood prevention policies with LDF	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
		Identify corporate risk of flooding CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise areas at risk of flooding and actions to prepare for and respond to flooding incidents.		Yes			No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
		Address flood risk through Cambs ESP, Flooding Group and Cambs & Peterborough LRF		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept & respond to increasing of flood risk.	No	No	No	No								No	No	No	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Review insurance for flooding. Establish partnership flood response arrangements.					No	Yes	Yes		Yes	No	Yes	Yes	Already assessed for Council insurance. Partnership arrangements already established through resilience forum structures.	No
		Install flood protection measures. Avoid development in flood risk areas.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Threat18	<b>Flood recovery, repair &amp; insurance costs for Council property</b>	Undertake Strategic Flood Risk Assessment incorporating climate change projections	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Monitor incidents of flooding and contributing risk factors		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Include flood prevention policies with LDF	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
		Identify corporate risk of flooding CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Assess flood risks of future projects, budget bids & savings. Fund measures which manage flood risks to Council people, property and services.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise areas at risk of flooding and actions to prepare for and respond to flooding incidents.		Yes			No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
		Address flood risk through Cambs ESP, Flooding Group and Cambs & Peterborough LRF		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept & respond to increasing of flood risk.	No	No	No	No							No	No	No	No
		Review insurance for flooding. Establish partnership flood response arrangements.					No	Yes	Yes		Yes	No	Yes	Yes	Already assessed for Council insurance. Partnership arrangements already established through resilience forum structures.	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
		Install flood protection measures. Avoid development in flood risk areas.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Threat1	<b>Achievement of corporate strategic objectives regarding sustainable development threatened</b>	Address risk in sustainability appraisals of LDF documents	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Monitor water consumption and availability levels						No							Omit as already undertaken by water companies	No	
		Seek higher CSH levels in LDF policies	Yes					No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Include water efficiency as a strategic objective for: Cambs ESP City Council	Yes					No	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
		Include water efficiency within community environmental education activities		Yes				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
		Address risk through Cambs ESP with Environment Agency & water companies		Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Install measures to reduce reliance on mains water supply.				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include		
Threat19	<b>Flood restoration costs for Council managed riparian sites and drainage clearance</b>	Undertake Strategic Flood Risk Assessment incorporating climate change projections	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
		Monitor incidents of flooding and contributing risk factors		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Include flood prevention policies with LDF	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	
		Identify corporate risk of flooding CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Assess flood risks of future projects, budget bids & savings. Fund measures which manage flood risks to Council people, property and services.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise areas at risk of flooding and actions to prepare for and respond to flooding incidents.		Yes			No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Address flood risk through Cambs ESP, Flooding Group and Cambs & Peterborough LRF		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept & respond to increasing of flood risk.	No	No	No	No							No	No	No	No
		Review insurance for flooding. Establish partnership flood response arrangements.					No	Yes	Yes		Yes	No	Yes	Yes	Already assessed for Council insurance. Partnership arrangements already established through resilience forum structures.	No
		Install flood protection measures. Avoid development in flood risk areas.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat20	<b>Service disruption and staff absenteeism due to flooding</b>	Identify corporate risk of flooding CRR (External impact) to be reflected within future review of service risk assessments. Maintain corporate and service business continuity plans. Promote Staff Travel Plan as measure to diversify transport options.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Publicise actions to prepare for and respond to flooding incidents.		Yes			No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
		Address risk through Cambs & Peterborough LRF		Yes			No									Risk already addressed by LRF activities	No
		Accept & respond to disruption	No	No	No	No								No	No	No	No
		Strengthen resilience of priority services through inter-service (and organisation) support agreements					Yes		Yes	Yes	Yes		No	Yes		Short lead-in time enables action to be implemented in response to any increased need.	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Promote home working capabilities. Enable Council staff to work from multiple locations (satellite offices)			Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Promote as control measure for managing risk of travel disruption. Home Working programme already being implemented.	Yes
Threat2	<b>Equipment failure (e.g. servers) due to maximum temperature exceedance</b>	Identify maximum operating temperature thresholds for key equipment and infrastructure		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
		Monitor temperatures close to key equipment (e.g. server rooms) and incidents of failure		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Identify corporate risk of heat waves within CRR (External impact) to be reflected within future review of service risk assessments. Assess heat risks of future projects, budget bids & savings. Fund measures which manage heat risks to Council people, property and services.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise risks of equipment failure due to high temperatures and control measures		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
		Address risk through County risk management group		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept & respond to disruption	No	No	No	No							No	No	No	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Install heat resilient equipment and infrastructure (e.g. servers which minimise heat output, building layout designed to minimise heat gain).			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Threat3	<b>Increased electricity costs associated with providing a comfortable working environment</b>	Study to identify vulnerability of Council properties to high air temperatures and identify energy efficient control measures					Yes	Yes	?			No			Consider with monitoring evidence obtained and incorporate within service risk assessments.	No
		Monitor energy costs and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Corporate risk to be managed by services with building management responsibilities (offices, community centres, sheltered housing). Develop corporate standards for building management (comfort, energy & water use). Fund energy & water efficiency measures using the Climate Change Fund.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include energy cost data and projections within Medium Term Strategy.	Yes
		Publicise energy & water efficient methods of controlling internal temperatures		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Address risk through corporate Energy Group		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
		Accept increased energy & water consumption	No	No	No	No							No	No	No	No
		Install energy & water efficient measures Establish 'cool' zones in Council premises			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat4	<b>Increased demand for environmental health services</b>	Study to identify which sources of environmental health risks will increase due to climate change					Yes	No	?			No			Defra & CIEH lead.	No	
		Monitor environmental health enquiries and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Increase regulatory control of environmental health risk factors (e.g. waste management)					Yes	Yes	Yes	?	?	?	No	Yes	Yes	Business case would need further evidence and developing as part of Council enforcement policy. Short lead-in time would enable implementation when required.	No
		Service level risk to be managed by Environmental Health.		Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise risks associated with pathogens and vectors and appropriate control measures						Yes	No							Responsibility of the health authorities	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Address risk through Cambridge City & South Cambridgeshire Improving Health Partnership		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Combine with other health impacts of climate change and monitor evidence with Cambridge City & South Cambridgeshire Improving Health Partnership	Yes
		Accept increased health & safety risk	No	No	No	No							No	No	No	No
		Strengthen resilience of environmental health services through support agreements with neighbouring Councils				Yes		Yes	Yes	Yes		No	Yes		Short lead-in time enables action to be implemented in response to any increased need.	No
		Introduce vector control measures (e.g. sprays, window & door mesh, fly electrocutors)		Yes			Yes	No				No			Short lead-in time and evidence of need do not justify immediate implementation.	No
Threat5	<b>Increased demand for environmental health</b>	Study to identify causes of odour likely to increase due to climate change					Yes	No	?			No			Short lead-in time enables action to be implemented in response to any increased need.	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
	<b>services (odours)</b>	Monitor environmental health enquiries and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Increase regulatory control of odour causes (e.g. waste management)				Yes	Yes	Yes	?	?	?	No	Yes	Yes	Business case would need further evidence and developing as part of Council enforcement policy. Short lead-in time would enable implementation when required.	No
		Service level risk to be managed by Environmental Health.		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise causes of odours and appropriate control measures		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Short lead-in time enables action to be implemented in response to any increased need.	No
		Accept increased risk of odours	No	No	No	No								No	No	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
		Strengthen resilience of environmental health services through support agreements with neighbouring Councils				Yes		Yes	Yes	Yes		No	Yes		Short lead-in time enables action to be implemented in response to any increased need.	No	
		Strengthen odour control measures (e.g. street washing)		No			Yes	Yes	?	No		No			Short lead-in time enables action to be implemented in response to any increased need.	No	
Threat6	<b>Increased fire risk to Council staff &amp; property</b>	Study to identify fire risk factors due to heat waves					Yes	No	?			No			Short lead-in time enables action to be implemented in response to any increased need.	No	
		Monitor fire incidents and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Publicise fire prevention behaviour during heat waves (e.g. enhanced risks from discarded cigarettes)		Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
		Address risk through County risk management group			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Accept increased health & safety risk	No	No	No	No							No	No	No	No
		Fire insurance for Council property					No	Yes				No			Fire insurance already assessed.	No
		Install fire prevention measures			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Threat7	<b>Achievement of the City Council Air Quality Strategy objectives threatened</b>	Study to identify relationships between heat waves and poor air quality					Yes	No	?			No			Defra & CIEH lead.	No
		Monitor air quality and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Link air quality control measures to incidence of heat waves		Yes			Yes	Yes	?	?	?	No	?		Business case would need further evidence and developing as part of Council air quality strategy.	No
		Service level risk to be managed by Air Quality Strategy.		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Publicise Met Office air quality forecasts and warnings					Yes	No		No					Air quality warnings already publicised through national and local weather forecasts. City Council action would add little to existing awareness.	No
		Address risk through Cambs ESP		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Reduce City Council air quality objectives	No	No	No								No		No	No
		Ban air polluting activities (e.g. driving) during heat waves	No	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	Option no justified by current risk. Quick lead-in time could enable this option to be used quickly when justified.	No
Threat8	<b>Increased heat related health &amp; safety risk to staff and tenants</b>	Monitor incidents associated with heat related illnesses		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Identify corporate risk of heat waves within CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Publicise HSE & NHS Guidance of what to do in the event of a heat wave		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
		Address risk through Cambs & Peterborough LRF		Yes			No								Risk already addressed by LRF activities	No
		Accept increased health & safety risk	No	No	No	No							No	No	No	No
		Establish 'cool' zones in Council premises		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
Threat9	<b>Increased costs and demand for parks &amp; open spaces maintenance and cleaning</b>	Identify efficient maintenance and cleaning practices and cost recovery mechanisms		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Monitor maintenance and cleaning costs and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Increase littering penalties and enforcement for retailers and public				Yes	Yes	Yes	?	?	?	No	Yes	Yes	Business case would need further evidence and developing as part of Council enforcement policy. Short lead-in time would enable implementation when required.	No
		Corporate level risk to be managed by Parks & Open Spaces Strategy and Programme Group.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Promote responsible behaviours in parks and open spaces		Yes			No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
		Address risk through Love Cambridge Partnership		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept increased costs	No	No	No	No							No	No	No	No
		Establish cost recovery mechanisms with local businesses	No	No	No		Yes	Yes	?	?	?		?		Potential duplication of business rates. Business case would need further evidence and developing.	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
		Reduce the amount of parks & open spaces in Cambridge	No	No	No								No		No	No	
		Promote health & wellbeing benefits from increased outdoor activity			Yes		No	Yes	Yes	Yes	Yes	No	Yes	Yes	Already undertaken through 'Summer in the City' programme	No	
Threat10	<b>Increased costs and demand for trees, parks &amp; open spaces maintenance</b>	Identify efficient maintenance practices and cost recovery mechanisms		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Monitor maintenance costs and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Corporate level risk to be managed by Parks & Open Spaces Strategy and Programme Group.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept increased costs	No	No	No	No								No	No	No	No
		Establish cost sharing and recovery mechanisms	No	No	No		Yes	Yes	?	?	?			?		Potential duplication of business rates. Business case would need further evidence and developing.	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Reduce the amount of trees, parks & open spaces in Cambridge	No	No	No								No		No	No
		Explore opportunities for use of tree & green waste as biomass fuel source		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include within development of arboriculture strategy	Yes
Threat11	<b>Increased demand for environmental health services (food hygiene)</b>	Monitor demand for food hygiene services and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise temperature link to food hygiene risks and preventative actions				Yes	Yes	No							Food Standards Agency and health authorities lead.	No
		Address risk through Cambridge City & South Cambridgeshire Improving Health Partnership		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Combine with other health impacts of climate change and monitor evidence with Cambridge City & South Cambridgeshire Improving Health Partnership	Yes
		Accept increased health & safety risk	No	No	No	No								No	No	No

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat12	<b>Increased risk of theft from Council properties</b>	Monitor incidents of theft and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Publicise risks of burglaries linked to hot weather (e.g. leaving windows open) and preventative actions		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include as a control measure within a corporate heatwave response plan linked to corporate risk in CRR.	Yes
		Address risk through Cambridge Community Safety Partnership		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Low priority due to quick adaptation response times.	Yes	
		Accept increased risk of theft	No	No	No	No								No	No	No	No
		Theft insurance for Council property					No	Yes	Yes		Yes	No	Yes	Yes	Already assessed for Council insurance.	No	
		Install anti-theft measures (e.g. window security bars)					Yes	No	Yes	?	Yes	Yes	No	Yes	Yes	Already assessed for Council property security provision.	No
Threat13	<b>Increased staff absenteeism</b>	Study to identify temperature thresholds of transport infrastructure					Yes	No	?			No			DfT & Highways Authority lead.	No	

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
	<b>due to travel disruption or child care duties</b>	Monitor staff absenteeism and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Change construction specifications for transport infrastructure					No	No							Risk currently being addressed by DfT & highways authorities.	No	
		Identify corporate risk of transport disruption within CRR (External impact) to be reflected within future review of service risk assessments. Promote Staff Travel Plan as measure to diversify transport options.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Promote resilience benefits of travel options not reliant on road & rail infrastructure (e.g. cycling & walking)		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Include within service risk management guidance	Yes	
		Address risk through Cambs & Peterborough LRF		Yes			No								Risk already addressed by LRF activities	No	

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Accept & respond to disruption	No	No	No	No							No	No	No	No
		Strengthen resilience of priority services through inter-service (and organisation) support agreements				Yes		Yes	Yes	Yes		No	Yes		Short lead-in time enables action to be implemented in response to any increased need.	No
		Promote home working capabilities Enable Council staff to work from multiple locations (satellite offices)			Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Promote as control measure for managing risk of travel disruption. Home Working programme already being implemented.	Yes
Threat14	<b>Achievement of the City Council Nature Conservation Strategy objectives threatened</b>	Address risk in production of Natural Green Space Management Plans		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Ecological monitoring of species & habitats		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Strengthen abstraction and discharge licences, penalties and enforcement						No							Responsibility of the Environment Agency	No

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		Service level risk to be managed by Nature Conservation Strategy. Fund measures to manage climate change risks to City Council nature conservation services.		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Address risk through Cambs ESP with Environment Agency & water companies		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
		Reduce City Council Nature Conservation objectives	No	No	No								No		No	No
Threat15	<b>Achievement of the City Council Nature Conservation Strategy objectives threatened</b>	Address risk in production of Natural Green Space Management Plans		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Ecological monitoring of species & habitats		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Service level risk to be managed by Nature Conservation Strategy. Fund measures to manage climate change risks to City Council nature conservation services.		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Publicise drought tolerant species for use in green spaces		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Address risk through Cambs ESP & Biodiversity Partnership		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Replant green spaces with drought and heat tolerant species		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Consider detailed evidence for risks with development of Natural Green Space Management Plans.	Yes
		Green corridors to enable migration of species			Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Already included within sub-regional green infrastructure strategy and planning policy	No
Threat21-	<b>Disruption to Council water reliant activities &amp; processes</b>	Identify corporate risk of drought orders within CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
	<b>(e.g. swimming pools, vehicle washing, cleaning)</b>	Provide guidance on addressing climate change risks (incl. drought orders) for service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Include within service risk management guidance	Yes	
		Accept & respond to disruption	No	No	No	No								No	No	No	No
		Install measures to reduce reliance on mains water supply.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Threat22	<b>Increased demand and costs for drainage works to Council culverts</b>	Monitor water levels of Council culverts and rainfall relationship.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Identify corporate risk of flooding CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Assess flood risks of future projects, budget bids & savings. Fund measures which manage flood risks to Council people, property and services.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Publicise flood risks associated with Council assets and responsibilities and associated control measures.		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Include within service risk management guidance	Yes
		Address flood risk through Cambs ESP, Flooding Group and Cambs & Peterborough LRF		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Accept & respond to increasing of flood risk.	No	No	No	No							No	No	No	No
		Review insurance for flooding. Establish partnership flood response arrangements.					No	Yes	Yes		Yes	No	Yes	Yes	Already assessed for Council insurance. Partnership arrangements already established through resilience forum structures.	No
		Install flood protection measures. Avoid development in flood risk areas.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Threat23	<b>Potentially higher water bills</b>	Monitor water consumption of Council sites		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
		Fund invest to save water efficiency measures. Assess water efficiency of Council projects.		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Accept higher water bills	No	No	No	No							No	No	No	No	
		Install measures to reduce reliance on mains water supply.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Threat24	<b>Disruption of water supply to Council housing, sheltered housing &amp; temporary homeless units.</b>	Identify corporate risk of drought orders within CRR (External impact) to be reflected within future review of service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Provide guidance on addressing climate change risks (incl. drought orders) for service risk assessments.		Yes			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Include within service risk management guidance	Yes	
		Accept & respond to disruption	No	No	No	No								No	No	No	No
		Install measures to reduce reliance on mains water supply.			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Threat25	<b>Increased demand for Building Control services</b>	Study to identify and map subsidence risks in Cambridge					Yes	No	?			No			Short lead-in time enables action to be implemented in response to any increased need.	No	
		Monitor numbers and map incidents of subsidence		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Publicise subsidence risks, how to minimise them and what to do in the event of it occurring					Yes	Yes	Yes	No			No	Yes		Short lead-in time enables action to be implemented in response to any increased need.	No
		Accept & respond to increased demand	No	No	No	No								No	No	No	No
		Use deeper foundations															
Opp1	<b>Reduced gas costs associated with providing a comfortable working environment</b>	Monitor energy costs and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Opp2	<b>Reduced winter absentee rates and health &amp; safety incidents</b>	Monitor staff absenteeism and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include	
Opp3	<b>Reduced winter absentee rates and demand for bereavement services</b>	Research potential health impacts of climate change	No	No			Yes	No							Responsibility of the health authorities	No	
		Monitor staff absenteeism and temperature relationship		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Address potential opportunity through Cambridge City & South Cambridgeshire Improving Health Partnership		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Combine with other health impacts of climate change and monitor evidence with Cambridge City & South Cambridgeshire Improving Health Partnership	Yes
		Potential seasonal levelling of demand for bereavement services			Yes								Yes			Requires further evidence before implementation of any action.	No
Opp4	<b>Support local food growing (e.g. allotments)</b>	Include adequate provision for private gardens and allotments in LDF policies	Yes				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Active Communities service plan - support for local food growing and allotments		Yes			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CCID	City Council consequence	Option	No regrets	Low regrets	Win win	Flexible / adaptive	Additional	Council responsibility	Proportionate	Cost effective	Achievable	Long lead-in	No policy conflict	Resilience	Recommendation	Include
		Publicise opportunities for local food growing (e.g. community groups, events)			Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Current and future allotment provision already included within Council policy.	No
		Promote opportunity with Cambridge Allotment Network			Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Current and future allotment provision already included within Council policy.	No