

APPENDIX C

Central Bedfordshire Climate Change Risk Assessment

LDA Design were commissioned to conduct a local climate change adaptation study to help define and understand the risk and opportunities in the Central Bedfordshire area. The study provides the evidence needed to inform and shape the Council's Climate Change Adaptation Plan, which will contribute to preparation of the Development Strategy, corporate policies and emergency planning. The study compliments the first national Climate Change Risk Assessment (CCRA), published in January 2012, by applying its methodologies and findings to a local level. The findings include:

- (a) **Surface water flooding:** 15,000 homes and 1.1million m² of commercial buildings are located in areas susceptible to surface water flooding. This represents 9% of all homes and 34% of all commercial floor space. The risk of surface water flooding based on the Environment Agency's current estimate is for one flood event in every 30 years; this will increase to 1 in 18 year events in the 2050s and 1 in 14 year events in the 2080s.
- (b) **Pressure on water resources:** Central Bedfordshire is in an area of area of 'serious water stress'. This pressure is expected to increase in future and will reduce water available for householders, agriculture, industry and natural environment. The Anglian region currently has a deployable output (water supply available from the water company) of 1230 million litres per day (Ml/d) and current surplus of 96 Ml/d, roughly 8% spare capacity. The CCRA made an assessment of projected changes to deployable output under 3 scenarios: 'wet', 'mid' and 'dry'. These show that even in the near term (by 2020) we could experience significant constraints, even without considering the additional demand need to satisfy growth.

		Wet	Mid	Dry
Anglian	2020	4%	-6%	-16%
	2050	-10%	-25%	-40%
	2080	-20%	-30%	-40%

Table 1: Change in deployable water output for the Anglian Region.

- (c) **Overheating:** High and sustained temperatures have potentially serious consequences for health, productivity in the workplace and for the environment. This will see an increased level of risk, particularly for vulnerable groups such as the very young and elderly. Higher temperatures will also bring benefits. Milder winters will reduce winter mortality, demand for heating and can also cause a general reduction in the number of days of snow and ice; potentially reducing delays and disruption on the transport network. Longer warmer summers will also have economic benefits for the tourism sector.

The report can be found on the Council's website:

<http://www.centralbedfordshire.gov.uk/environment/natural-environment/climate-change-sustainability.aspx>