



meeting **ENVIRONMENT AND SUSTAINABILITY SELECT COMMITTEE**

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REPORT OF THE DIRECTOR OF ENVIRONMENT

UK CLIMATE CHANGE ADAPTATION POLICY FRAMEWORK A RESPONSE TO THE CONSULTATION BY THE DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS

Purpose of the Report

1. To inform Members of the Government's consultation over a UK Climate Change adaptation policy framework and to seek endorsement of the proposed response as set out in Appendix 1.

Background

2. It is widely recognised that our climate is changing with global temperatures set to rise by 1 to 2 degrees by 2050. This change is inevitable, regardless of our actions to reduce climate change, as any such actions will take 40-50 years to affect the climate. Here in Nottinghamshire we are already experiencing warmer, wetter winters; hotter, drier summers and more of the 'extremes' of weather that this global change is predicted to bring. Climate change adaptation is about how we respond to the consequences of these changes in weather (the effects of climate change).
3. The Department for Environment, Food and Rural Affairs (Defra) has decided to develop the first national adaptation policy framework (APF) and has produced a report for consultation, 'Adaptation Policy Framework'. This aims to develop a better understanding of climate change adaptation across the UK. It should provide a stronger strategic direction by setting agreed cross-cutting objectives and measuring progress. It should also ensure that adaptation to climate change is integrated into the wider policy making process. Following the consultation, responses will be collated and used to develop a picture of adaptation across the UK. The closing date for consultation responses is 31 January 2006.

The County Council's Response

4. The County Council has supported the preparation of a climate change framework for action for Nottinghamshire, published in September 2005 on behalf of the Nottinghamshire Agenda 21 Forum. This addresses the ways in

which both the causes and effects of climate change can be tackled. The Council has also committed to producing its own climate change adaptation plan in 2006-07, which alongside its holistic carbon management plan will form a comprehensive response to the challenge of climate change. Therefore any national framework that helps further support our work is to be welcomed.

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5. The proposed detailed response to the consultation is attached as Appendix 1.
 6. A template for considering the potential impacts of climate change on local authority services and examples of possible adaptation responses has been produced by the UK Climate Impacts Programme (UKCIP). An extract from this document is attached as Appendix 2 for information.

PETER WEBSTER
Director of Environment

EPS.NB/AA/EP4803
20 December 2005

APPENDIX 1

CONSULTATION QUESTION AND OUR RESPONSES

1. *What types of activity do you participate in that needs to take account of the impacts of climate change?*

These are addressed by the UKCIP, adaptation guide for local authorities, published in 2003. In addition, our role as community leaders and in developing and implementing community strategies means that we need to consider impacts that go beyond our own direct services.

2. *Is adaptation to climate change something you have considered previously?*

Yes, for example in supporting the preparation of a climate change framework for action for Nottinghamshire by the Nottinghamshire Agenda 21 Forum and in our role in emergency planning, particularly with respect to flood risk.

3. *Have you already been affected by some aspect of climate change or a weather related event?*

Yes, in many ways, for example by flooding of the River Trent, flash floods, storm damage to trees, the increased growing season for grass, impacts on highway maintenance (eg winter gritting) and uncomfortable temperatures in buildings.

4. *Within your particular sector are you aware of adaptation occurring under any of the relevant headings, even if it is not being directly carried out by you? Are you a partner in the particular activity or had it impacted on your work in any way?*

To date our main emphasis has focused on awareness raising through conferences, events and publications. The Council is committed to preparing a climate change adaptation plan for the organisation in 2006-07.

See www.nottinghamshire.gov.uk/greenissues/climatechange.htm

5. *Does this reflect the full range of possible adaptation activities? Are there particular activities which cannot be captured in the headings described here?*

The climate change framework for action in Nottinghamshire does address the different types of adaptation activities, but not in a comprehensive and systematic way. The headings described appear all-embracing.

6. *Do you feel that the sectoral split has allowed full coverage of all areas which may need to consider adaptation or are already beginning to adapt? How could this approach be altered in order to reflect more cross-cutting issues or areas you feel are not sufficiently covered?*

The sectoral split appears fairly comprehensive. Categories which may need to be integrated/included in some way could include land management (eg care of parks and gardens, school grounds and amenity plantings) and the education and training sector (adaptation here being the need to address the need for adaptation, so to speak).

7. *How should we develop the approach we have used for gathering evidence of adaptation actions? Has the approach allowed for a full range of different activities to be covered within the set framework?*

With respect to gathering evidence of local authority actions and possibly evidence from other sectors, it might be helpful for the government to support a local authority climate change project, building on the work of the development group currently steering activity in association with the Nottingham Declaration on Climate Change. It would be helpful to have a function in place similar to that which existed to support local authority Local Agenda 21 activity, post Rio. This small unit, sitting then within the Local Government Management Board was able, amongst a huge range of activity, to collate a wealth of case-study material.

The approach used is to be commended.

8. *What action should be taken by central government and the devolved administrations to prepare for and adapt to unavoidable climate change?*

As a signatory to the Nottingham Declaration, this Council would welcome any additional national or regional support given to support local authorities in implementing commitments made under this Declaration.

9. *Where does the responsibility lie in preparing for the unavoidable effects of climate change?*

Responsibility lies with all organisations (and individuals) but clearly requires strong national leadership. The UKCIP provides a welcome role in providing something of a 'one-stop' shop for considering the impacts of climate change - something which is considerably lacking when it comes to mitigation.

10. *Has the incorporation of climate change impacts in guidance notes on other advisory documents had an impact on the work you carry out? Has new advice/guidance made it easier or more difficult to consider climate change impacts?*

Yes it has had an impact, particularly in terms of awareness, but we have not really made use of the tools in Table 4 as yet.

11. *Have you ever used these tools when considering climate change in planning? Are there elements of tools that you find particularly helpful?*

We have made use of the climate change scenarios in preparing the Nottinghamshire Action Plan Framework.

12. *What additional tools (if any) are required to support adaptation?*

The need for additional tools may arise from activity associated with supporting the Nottingham Declaration to Climate Change.

APPENDIX 2

Extract from “Climate Change and Local Communities - How Prepared are You?” (UK Climate Impacts Programme guidance and local authorities)

Adapting to the effects of climate change

Climate change could affect the maintenance of your assets and infrastructure and delivery of key services. If you start planning now for some of these future changes, you could avoid unnecessary costs and damages in the future. Areas with long-term planning horizons or long life-times, such as major new developments, are a particular priority for adaptation. Decisions taken today will affect the resilience of infrastructure over coming decades as the impacts of climate change begin to be felt more often and more intensely. The information on pages 6 and 7 will help you set your own adaptation priorities and time-scales for response.

Although there is some uncertainty about the extent and speed of changes, we are more confident about the direction that the changes will take. Even allowing for uncertainties, the potential risks are such that we should take responsive action now on a sensible, no-regrets basis - particularly because of the long time lags in the climate system. For decisions involving large investments, it is recommended that a more detailed risk assessment is carried out: contact UKCIP for further information.

Local Authority Service	Potential Impacts of Climate Change	Examples of Possible Adaptation Responses ¹
Planning		
Forward Planning and Development Control	Higher risk of flooding/erosion of susceptible developments in floodplains or coastal margins	Ensure planning takes account of future trends in flooding and coastal erosion. Consider range of options for flood and coastal management, including promoting appropriate and sustainable defences (with the Environment Agency where appropriate) and locating new development away from areas of highest risk
		Incorporate landscape features to absorb water within developments
	Hotter drier summers could further increase pressure on water resources	Consider potential water supply/demand issues when siting new development
	Improved summer climate provides greater potential for outdoor living	Consider how Strategic and Local Plans can accommodate changes in recreational needs.
Emergency Planning	Increased risk of flooding and severe weather	Ensure emergency procedures and equipment are updated to meet increased risk
Housing and Buildings		
Housing	Increased risk of subsidence as soils shrink in hotter drier summers	Plan for preventative and remedial maintenance of existing stock
	Higher risk to houses in floodplains or coastal margins	Consider restricting development in the floodplain and coastal margins for new housing, and instigating a range of flood-

		proofing measures or sustainable defence measures for existing properties
	Temperature increases affect living space environment	Use thermal properties of materials to improve cooling and retrofit energy efficient systems
Management of public buildings	Temperature increases affect thermal comfort	Retrofit or upgrade energy efficient heating and ventilation
	Wetter winters causing damp, condensation and mould problems	Upgrade weatherproofing systems and manage internal environment
	Higher risk to buildings currently located in floodplain or coastal areas	Consider flood-proofing measures or relocate
Building Control	Drier summers increase risk of foundation subsidence	Consider changes to procedures and inspections to ensure foundations are resilient
	Wetter winters and severe weather increase damp problems	Consider updating procedures to include measures for wetter conditions
Building Design Services/Architecture	Climate change influences future design (in response to above)	Rethink built environment design and revise practice to suit
		Make use of thermal properties of materials to improve cooling
		Reduce solar heating using recessed windows, roof overhangs and shades
Transport and Highways		
Transport Planning	Increased risk of flood disruption due to wetter winters and severe weather	Plan to flood-proof or re-site infrastructure and plan routes to minimise disruption
	Increased temperature causing service disruption and heat stress to travelling public	Avoid exposed places and provide shade or cooled waiting areas
Highway Maintenance	Increased rainfall intensity affecting embankments and bridge piers and washing more debris into gullies	Increase monitoring and maintenance of embankments and bridge piers, and increase gully emptying activity
	Drier summers increase risk of road subsidence and higher temperatures increase risk of surface damage	Re-examine road structural design. Implement remedial work for existing roads
	Higher risk to roads located in floodplain or coastal areas	Aim to flood-proof or re-site strategically important roads
	Increase in rate of growth and length of growing season of road verges	Use slower growing plants in landscape schemes. Revise mowing/weed control schedule
	Warmer winters with reduced risk of frost	Reduced need for road salting

Health and Social		
Health and Social Services	Higher risk of skin cancer/sun burn due to hotter summers and increased outdoor recreation	Consider ways to increase awareness of dangers of exposure. Provide more shade in public recreational areas
	Heat stress to the old, poor and vulnerable communities and people likely to increase	Ensure adequate shade and cooling available
Environmental Health	Higher temperatures likely to increase cases of food poisoning	Consider ways to increase awareness of food hygiene practices and revise best practice
	Higher levels of dust in the air due to drier summers	May need to hose down streets in urban areas
Environmental Services and Awareness		
Greenspace Management	Increase in rate of growth leading to year-round grass maintenance	Adapt maintenance schedules and resources to meet change
	Loss of trees and shrubs due to drier summers and wetter winters	Plant trees and shrubs that will tolerate future conditions
	Climate change influence on natural environment	Plan for wildlife corridors to allow natural migration
Watercourse Management	Wetter winters and increased rainfall intensity causing local flooding	Increase ditch clearing and gully emptying activities to obviate blockages
Waste Services	Rubbish will decay more rapidly in higher summer temperatures	More frequent waste collections particularly in summer
	Higher summer temperatures and higher, more intense, winter rainfall may affect landfill design and operation	Monitor condition of existing landfill sites. Check design and operation of future sites with regard to climate change
Community Awareness	Climate change will impact communities	Proactively raise awareness, and provide advice and information
Business support	Climate change provides changing markets, eg tourism and agriculture, and demand for new products	Encourage business to adapt to new markets

¹ These are included as examples of possible ways to prepare your community for climate change. Please consult www.ukcip.org.uk/local_authorities/local_authorities.htm for a more detailed description of the range of options and how to decide what is best for your community. For decisions involving substantial investments, we recommend you undertake a more complete risk assessment.