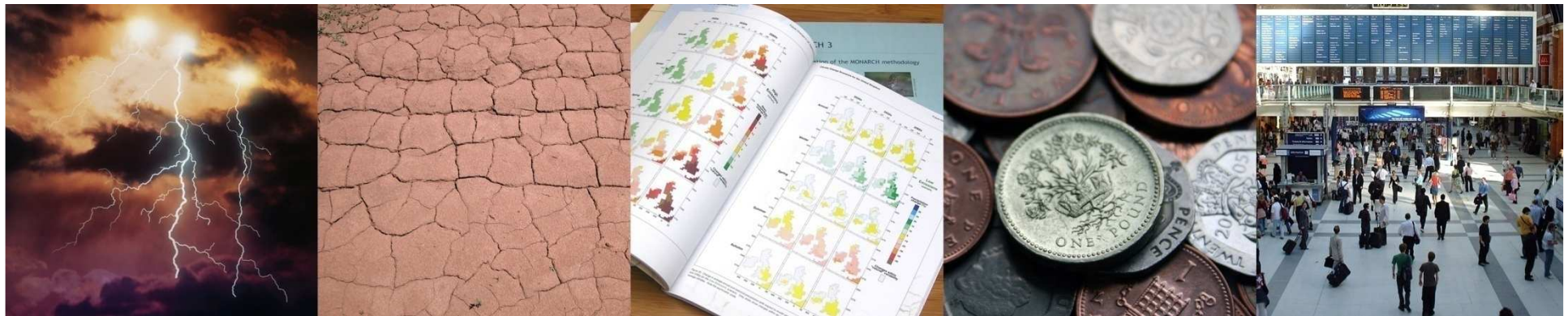


# Climate change risk assessment

**NI188 Planning to adapt to climate change  
Level 2  
Exeter 22<sup>nd</sup> April 2010**



Laurie Newton  
Knowledge Transfer Team  
UK Climate Impacts Programme

# NI188: Planning to adapt to climate change

- Level 0: Baseline
- Level 1: Public commitment and prioritised risk-based assessment
- Level 2: Comprehensive risk-based assessment and prioritised action in some areas
- Level 3: Comprehensive action plan and prioritised action in all priority areas
- Level 4: Implementation, monitoring and continuous review

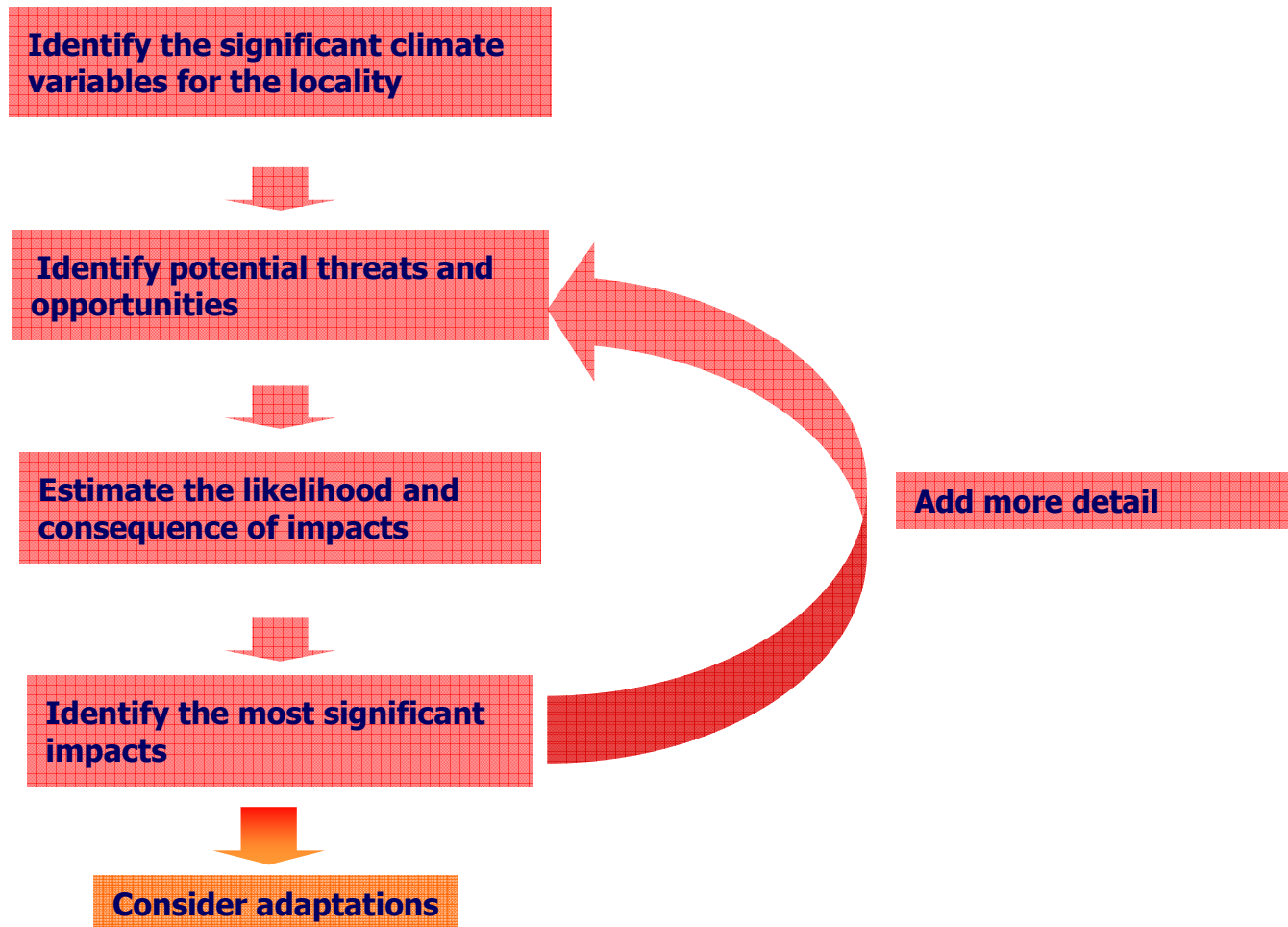
## Criteria to be achieved for Level 2 of NI188

- a. Undertaken a comprehensive risk based assessment of vulnerabilities to weather and climate, both now and in the future.
- b. Identified priority risks for council services.
- c. Identified the most effective adaptive responses.
- d. Started to incorporate adaptive responses into council strategies, plans, partnerships and operations.
- e. Begun implementing appropriate adaptive responses in some priority areas.
- f. Encouraged the LSP to identify major weather and climate vulnerabilities and opportunities that affect the delivery of the LSP's objectives.

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# Assessing local impacts of climate change

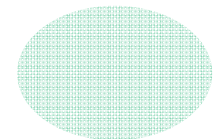


# Choosing your approach

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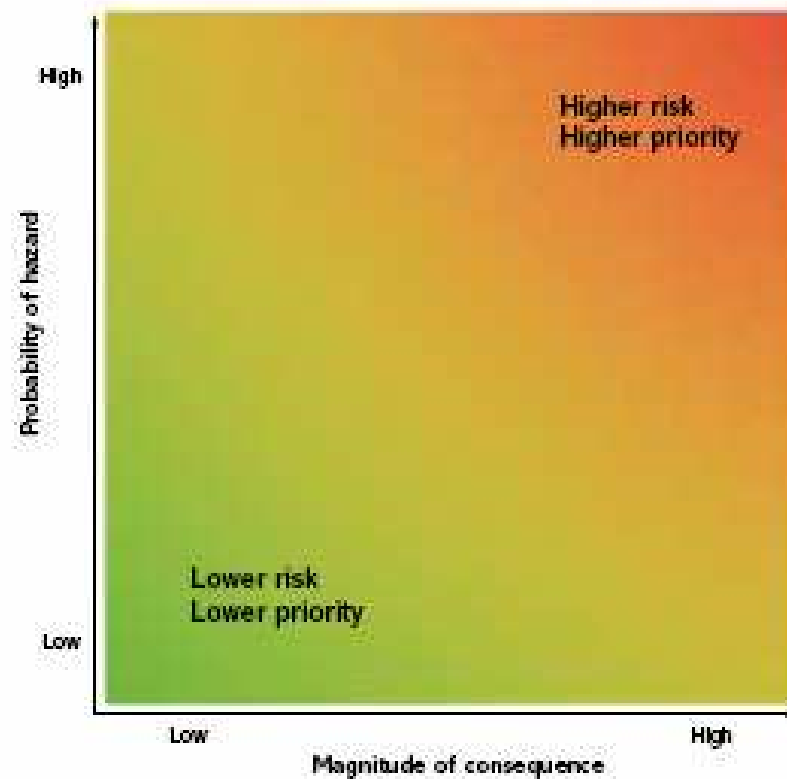
One of the fundamental questions is whether to:

- conduct the climate risk assessment as a separate, discrete activity, or
- to use existing risk management process within your authority?



# Risk: a simple concept

- the combination of the likelihood of an event occurring and the consequence(s) associated with that event



# Risk Assessment

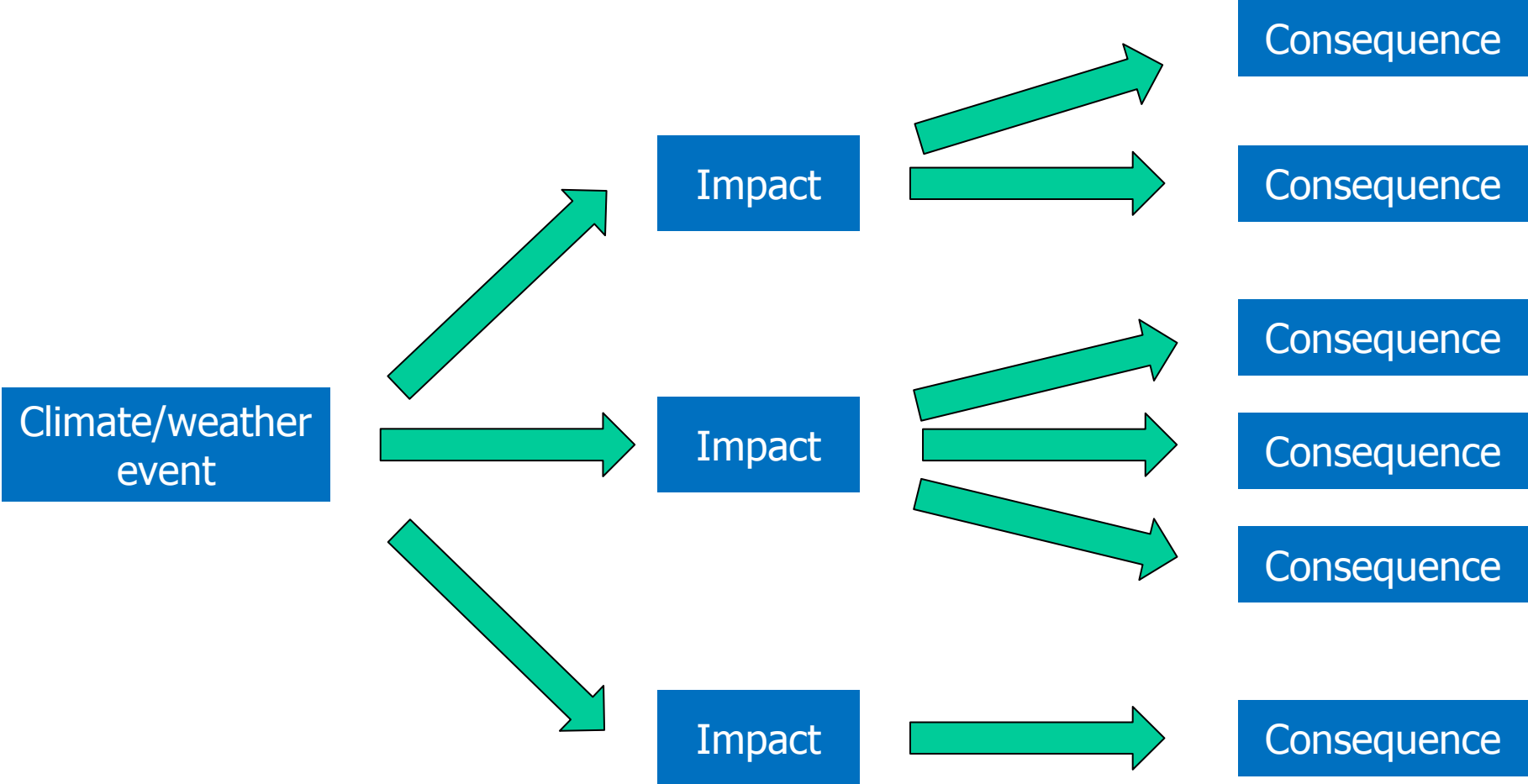
## Likelihood of impact occurring

- **likelihood of weather event or climate change occurring**
- **what impact(s) is of interest**  
**leading to**
- **likelihood of impact occurring**

## Severity of consequence

- **consequence(s) for a specified receptor**
- **criteria for assessment of severity**  
**leading to**
- **severity of consequence**

# Weather, impacts and consequences



Consequences may vary  
for different receptors

# Examples of receptors and risk categories

## UKCIP BACLIAT

- People:** implications for workforce, customers/clients and changing lifestyles
- Demand:** changing demand for services
- Premises:** impacts on building design, construction, maintenance and facilities management
- Process:** impacts on the processes of service delivery
- Finance:** implications for investment, insurance and stakeholder reputation
- Logistics:** vulnerability of supply chain, utilities and transport infrastructure

## Cardiff City Council

- Service/targets/objectives**
- Reputation**
- Health & safety**
- Statutory/legal**
- Financial**
- Partnership**
- Community/environment**
- Stakeholders**

## Leeds City Council

- Health & safety**
- Local community**
- Finance**
- Time**
- Reputation**

# Identifying impacts

**Consider how these expected changes to the UK climate may affect your services, operation and local community**

## **Annual / seasonal averages**

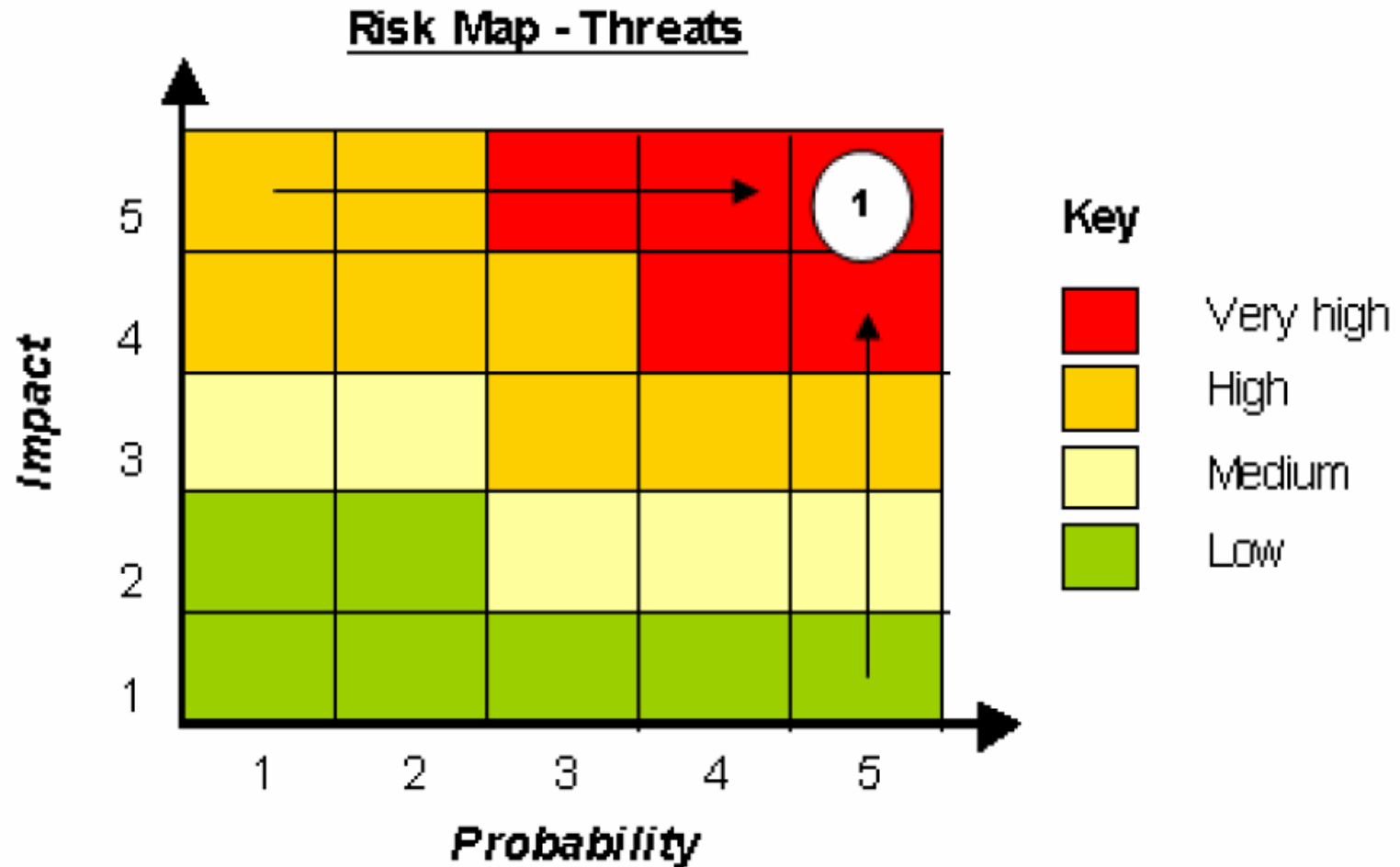
- Warmer, drier summers (spring, autumn too)
- Milder, wetter winters
- Rising sea levels
- Seasonal shifts

## **Extremes**

- More very hot days
- More intense downpours of rain
- Shorter return periods for high water levels at coast
- Uncertain changes in storms – possible increase in winter



# Example of a typical risk matrix

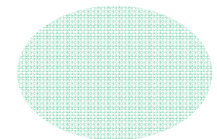


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## Time periods for 'now' and 'in the future'

In considering future impacts upon the council's business it will be important to **define the time period(s) for which you wish to prepare.**

This is not when the decision needs to be made, but the critical period when the adaptation action needs to be in place and working

You will need to take account of local planning and electoral cycles, as well as lead times for R&D, implementation, and the shelf-life of actual adaptation.

- **Near-term: now until 2015**
- **Mid-term: 2015 until 2045**
- **Long-term: 2045 until 2075**

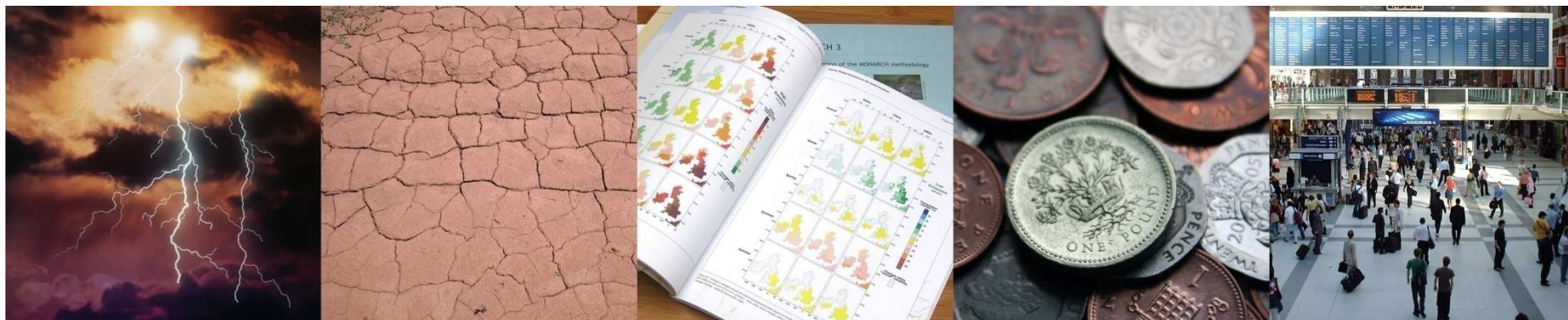
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# Likely types of priority risks

- **Current risks/vulnerabilities**
  - **Physical environment**
  - **Service delivery**
- **Current actions/decisions with long term consequences**
  - **Investments**
  - **Developments**
  - **Contracts**
  - **Development of policies and strategies**
- **Potentially significant impacts in longer term as climate changes**
  - **Physical environment**
  - **Service delivery**
  - **Policy objectives**

[www.ukcip.org.uk](http://www.ukcip.org.uk)



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