

INTRODUCTION

In recent years the UK has been affected by severe weather events such as heat waves, high wind speeds and flooding. Climate scientists predict that these sorts of events will occur more often as a result of climate change.

A Local Climate Impact Profile (LCLIP) is a resource that can be used to better understand exposure to weather and climate. It helps identify the vulnerability of local communities and services to severe weather events.

This work forms an important component of action required by the national performance indicator for local authorities, NI188: *Planning to Adapt to Climate Change*.

KEY FINDINGS

The Nottinghamshire County Council LCLIP identifies seven severe weather events since 2000 that were considered to have significant impacts on County Council services:

Weather event	Date
Flooding	November 2000
Flooding	July – August 2004
Heat wave & Flooding	July 2006
Gales	January 2007
Flooding	June – July 2007
Flooding	January 2008
Severe winter – snow & ice	February 2010

Flooding

The 2007 floods were the most significant severe weather event that impacted on our services. Consequences of these floods included:

- High council expenditure, particularly for Highways department
- Resident evacuation (including elderly & ill) to rest centres
- Disruption to infrastructure (roads damaged/closed)
- Flooding of over 1400 properties

- Loss of income to businesses
- Sewage contamination of flood water
- Flood damage claims from 54 schools (repair for two Nottinghamshire schools cost over £1million each)



Photo: 2007 floods in Nottinghamshire

Gales

In 2007, gales caused havoc across Nottinghamshire's travel network. Impacts included:

- Trees blocking routes; several traffic accidents
- Power lines blown down
- Damage to council owned buildings
- Damage to road network: restoration costs to Highways Department of between £25,000 - £30,000



Photo: 2007 gales in Nottinghamshire

Heat waves

The effects of heat waves included:

- Melting roads
- Fires in green spaces
- Increases in anti-social behaviour (particularly incidents of arson within parks which caused grass and scrub fires)

Severe winter – snow and ice

Effects of the cold snap in February 2010 were felt across all services. Some impacts include:

- Increased number of insurance claims, primarily down to a large increase in pot hole damage claims
- Supply and demand issues and cost issues with gritting services for Highways services
- Difficulties for staff reaching work (the Emergency Social Care team for Children in Newark and Bassetlaw operated from a worker's home address after their usual office was closed)
- Lost time for landscaping team (154 hours of staff time was redirected to snow clearance in the 2009/2010 winter)

Warmer And Wetter Climate

In addition to severe weather events, issues related to the increasingly warmer and wetter climate were noted:

- Extended bird nesting and vegetation growing seasons (reducing the time available for maintenance work without disturbing nesting birds)
- Increased rate of vegetation growth (thus paths become overgrown more quickly and required increased maintenance)
- Increased prevalence of insects and diseases that cause damage to trees

Reputation

The way that Nottinghamshire County Council responds to severe weather events affects its reputation and ability to deliver services to its customers. Issues that put the County Council under particular pressure include:

- Repeated flooding in the same area
- Confusion about who is responsible for managing/maintaining drains
- Media reporting about arson attacks in Country Parks
- Time taken to repair services to a useable state

Press coverage recognised the council as handling the 2000 floods in a well co-ordinated manner, and effectively assisting hundreds of people.

Budget

Most of the expense associated with severe weather events and consequences is absorbed by existing budgets. Hidden costs include staff over-time, delaying of scheduled work and reduction in available services.

However, the budgets of a few services (such as Highways Winter Maintenance and the Insurance and Risk Management) take into consideration weather-related consequences.

Management response

Nottinghamshire County Council has detailed emergency procedures to follow which lie with the Emergency Planning team. These are mostly response protocols to emergencies rather than preventative/adaptive actions. Specific departmental responses to severe weather include the following:

- o In response to both the 2000 and 2007 flooding the Emergency Planning team reviewed and altered the Flood Response Protocol
- o In response to the threat of hot weather the Adult Social Care and Health services now have a Heatwave Response Plan
- o The Highways Department follows the Emergency Planning team's major emergency plans
- o In response to summer fires, summer patrols in Bestwood Country Park have increased to prevent arson in hot weather

Weather impacts that do not constitute an emergency are usually addressed at service level. The LCLIP project identified that very few services actively record impacts and consequences of severe weather events.

SUMMARY & THE FUTURE

The LCLIP for Nottinghamshire County Council has illustrated the current vulnerability of the council's services to severe weather. We have an indication of the costs and impacts of weather-related events to the County Council, although there are currently some uncertainties due to a lack of information on the impacts of weather on service delivery.

This is important because climate projections indicate that we can expect warmer, wetter winters and hotter, drier summers. They also indicate that the frequency of severe weather events will increase. We will need to continue to grow our understanding of the impacts of severe weather and adapt accordingly to reduce the risk to services and communities presented by such changes.