

USING AN LCLIP TO ASSESS A LOCAL AUTHORITY'S VULNERABILITY TO CLIMATE CHANGE

Case study: Aberdeen City Council

Between 2008 and 2013 Aberdeen City Council was affected by 59 weather related incidents, ranging from flooding on the roads and fallen trees during stormy weather, to school closures caused by snow and ice. Using a Local Climate Impacts Profile (LCLIP), the Council assessed its vulnerability to weather events, and examined how the findings can be used to increase their resilience to future extreme weather. This case study explains how this process was completed using a six stage approach.

How will the climate change in East Scotland?

UK Climate Projections 2009 data for East Scotland suggests that, under a medium emissions scenario, by the 2050s the region may see:

- An increase in summer mean temperatures of around 2.3°C, and of winter temperatures of around 1.7°C;
- A 10% increase in winter mean precipitation and a 13% decrease in summer mean precipitation.



Source: <http://ukclimateprojections.metoffice.gov.uk>

**Adaptation
Scotland**
supporting climate change resilience

What is an LCLIP?

A Local Climate Impacts Profile is a tool developed by UKCIP (an organisation set up to help society adapt to climate change) to understand how the current weather affects an organisation. The process involves researching past weather events through newspaper archives and interviews with key personnel.

Why do an LCLIP?

Working through the LCLIP process raises awareness of the impacts of severe weather events on the Council. In addition, it increases the understanding of where the Council needs to adapt its existing strategies, policies, plans and procedures to meet the changes. The LCLIP process has also helped to inform the Council's Climate Change Strategic documents which includes an Adaptation Plan.

The LCLIP process

The LCLIP approach is split into six stages (Figure 1) and was completed over a 9 month period.

- 1. Purpose and objectives:** Examine recent weather events and the Council's vulnerability to future extreme weather.
- 2. Media review:** A range of media sources were used to identify severe weather events that affected Aberdeen City, as well as the impact, consequences and response to these events. Media searches were carried out using terms such as extreme weather, heavy rain, snow, storms and flooding. Online resources were also used such as news websites and newspapers on microfiche in local libraries. The collected data was then collated in a spreadsheet that was available from the UKCIP toolkit.



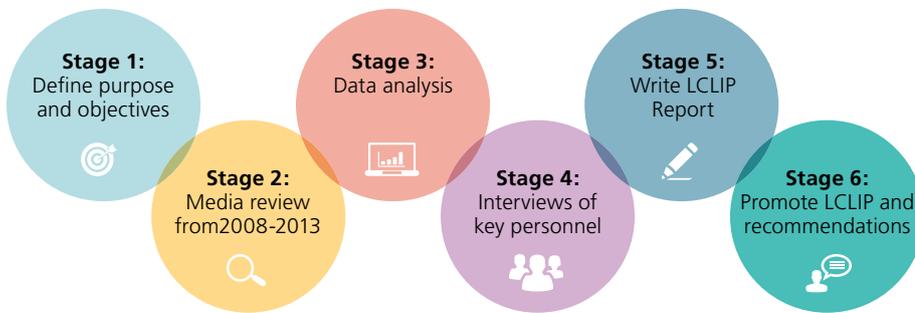


Figure 1. Aberdeen City Councils LCLIP process based on UKCIP's LCLIP

- 3. Data analysis:** The data was analysed to highlight the services most affected by the Council. It also identified who to interview on the subject.
- 4. Interviews:** Staff conducted interviews with officers across the Council in order to gather further information on the impact and consequences of extreme weather on Council services.
- 5. Write report:** Qualitative and quantitative data collated from the media review and interviews were used to write the LCLIP report and develop key recommendations.
- 6. Promote LCLIP:** The report was promoted widely to raise awareness and engage with key stakeholders on climate change adaptation.

- Heavy rain causing flooding, erosion of paths and disruption to grounds maintenance work.
- School closures during snowy/icy conditions.
- Clearance of roads, road repairs and availability of salt during winters with severe snow and ice affecting the roads team and potentially all Council services through loss of staff time.
- Cancellation of events due to snow, wind and torrential rain.
- Building maintenance during snow, rain and high winds.
- Waste collection during excessive snow, rain and wind.

The LCLIP findings

The most frequent severe weather events that occurred between 2008 and 2013 were frost, ice and/or snow followed by rainfall and flooding.

Other key issues identified were:

- Damage on trees from stormy weather impacting on roads, arboricultural services and grounds maintenance.

Recommendations

Our top learning points and recommendations for those wishing to complete an LCLIP would be to:

1. Record data better. To investigate developing a system for all services to record extreme weather events and impacts. e.g. Type of event, impacts, service response, complaints, closures, costs and loss of service provision.
2. Form a climate change adaptation subgroup or similar.
3. Develop an Adaptation Plan.

4. Raise awareness of the impacts of severe weather and the need for climate change adaptation throughout the city and sectors.
5. Share information on climate risk and adaptation strategies between Council services and other public sector organisations to increase knowledge and improve responses.
6. Review strategies, policies, plans, projects and processes to ensure climate change adaptation is addressed and integrated.
7. Identify adaptation training needs.

Next steps

Work is now taking place to develop an Adaptation Plan, which will sit alongside a Sustainable Energy Action Plan, to address mitigation and adaptation measures in Aberdeen. These two plans will replace the Council's Climate Change Action Plan (2002).

Working through the LCLIP process is a starting point to informing future climate change adaptation work and building staff's understanding of the need to increase our resilience and safeguard our services.

Further information

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For details of the LCLIP process, visit the UKCIP website at:

www.ukcip.org.uk/wizard/lclip

Adaptation support

The Adaptation Learning Exchange (ALE) is a programme to support organisations with adaptation planning, enabling them to address common adaptation challenges and explore opportunities. For more about the ALE, visit our website or contact sophie@sniffer.org.uk

www.adaptationscotland.org.uk

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