Service briefing: Growth, Regeneration, Housing & Planning

Why should your council take action?

Small firms directly affected by the 2013/14 winter storms suffered average damages of £1,531 per business.\(^1\)

In 2011 the global market for goods and services which help develop climate resilience, such as flood modelling and protection, was worth £2.1 billion and employed over 21,000 people in the UK. The sector has a forecasted UK growth rate of 7.1% by 2017-18.\(^2\)

Local planning for severe weather is a statutory requirement of government legislation including the Civil Contingencies Act 2004 and Flood and Water Management Act 2010.

The National Planning Policy Framework requires local planning authorities to adopt proactive strategies to adapt to changing weather, taking full account of flood risk, coastal change and water supply and demand considerations. Effective planning decisions now can result in significant avoided costs in future.

What interventions can your council make?

- Establish Local Plan policies supported by Supplementary Planning Documents to provide guidance to developers on measures to be incorporated into new developments (e.g. sustainable drainage, greywater recycling, passive cooling mechanisms).
- Join forces with the local chamber of commerce to offer business support and clustering opportunities through education and awareness raising (e.g. as part of Local Enterprise Partnership (LEP) competitiveness strategies or a City Deal).
- Partner with housing associations to explore the use of insurance, pension funds and municipal bonds to fund new affordable and sustainable housing.
- Consider and apply the Delivering Resilient Growth LEP information note to help inform local growth plans and projects. For example, understand and support strengths in adaptation goods and services.
- Encourage your LEP and their partners to run through the Local Environment & Economic Development toolkit so that they understand the relationship between economic plans and the environment.

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Cambridge council services savings
The promotion of Sustainable Drainage Systems through Cambridge’s Local Plan is projected to result in significant savings for council services, homeowners and industry (e.g. evacuation, infrastructure measures, and disposal of materials to landfill). At one specific site, based on average annual damages, a net value of £3.7m could be achieved by avoiding damages worth £5.8m through measures costing £2.1m.

Liverpool ‘AquaFutures’
Liverpool City Council and Liverpool LEP are seeking to capitalise on the areas water innovation capacity. There are over 55 local companies working in the water sector, responsible for £122m in sales activity, and 962 jobs. From this base, the council and LEP are seeking to develop a place-based, economic transformation agenda around water technology: the world’s first sustainable coastal city region cluster (‘AquaFutures’), specialising in marine impacts, river clean-up and water smart infrastructure.

Peterborough sustainable properties
Peterborough City Council is a board member of Cross Keys homes, which successfully issued a £150m bond to raise the finances to build 250 properties to a high sustainability standard (e.g. greywater recycling).
A learning resource developed by the Environment Agency’s Climate Ready Support Service in association with the Local Government Association, Climate UK and the Core Cities Group

Service briefing: Finance / Corporate Resources

Why should your council take action?

Innovative finance is a way to achieve more for less and is becoming a common practice for asset managers and buyers in local government.

Techniques to leverage available assets (monetary, physical, natural, data and people) include both established and more novel arrangements, ranging from revolving funds and joint procurement initiatives to voluntary reporting to institutional investors.

Such interventions, as illustrated in the case studies, can help to address major cost burdens or leverage extra funding from one or a combination of sources. The winter storms of 2013/14 cost Devon County Council an estimated £3m in initial clear-up costs alone.

Councils’ human resources functions need to consider the implications of severe weather and a changing climate for the health and wellbeing of staff and their ability to safely travel to work.

What interventions can your council make?

- Establish a revolving fund for efficiency in buildings to benefit from reductions in utility bills (e.g. water conservation to address scarcity).
- Encourage others to invest, such as crowdfunding for green entrepreneurs (e.g. rooftop gardeners, programmers making use of open source data on heatwaves and cold snaps, leaks and drought).
- Voluntarily report to institutional investors on your council’s plans for managing the impacts of severe weather to stimulate investment in local infrastructure (e.g. Carbon Disclosure Project (CDP) helps reveal the risk in the portfolios to 767 institutional investors holding $92 trillion in assets).

1. Devon County Council, 2014. Extreme weather resilience report
Case studies

Greater Manchester and CDP Cities
Greater Manchester is one of 207 cities around the world which voluntarily participates in CDP Cities2 in order to maintain their attractiveness to institutional investors. For instance, reporting on plans to address heat island effects through cooling measures in major buildings.

Glasgow City Council new water efficiency infrastructure
Glasgow City Council has entered into a commercial partnership with a non-domestic water supplier which has funded investment in new water efficiency infrastructure through a Gainshare model. This will allow the council to benefit from the associated financial savings without the need for up-front capital expenditure. This will result in operational savings of £1m in water and wastewater over 4 years.

Suffolk sustainable communities
The overall objective of Suffolk Coastal and Waveney District Councils’ joint Coastal Management Team (CoMT) is to manage the risk to life, property and the environment from coastal erosion and related flooding in the community. However, by ensuring the two councils have sustainable communities ready to serve the offshore wind energy supply chain, key sites have the potential to benefit from the creation of 13,500 jobs and attraction of 200 businesses.

2. CDP’s cities program provides a voluntary climate change reporting platform for city governments. The program is open to any city government, regardless of size or geographic location.
Why should your council take action?

The way that new developments are designed and built (e.g. in providing shade during heatwaves or controlling surface water during intense rainfall) will play a critical role in determining an area’s long-term resilience to severe weather and a changing climate.

Flooding can result in major costs to councils. Low cost programmes to develop the capacity of residents to respond to floods and other emergencies themselves relieves pressures on council and partners budgets.

Energy costs and water costs are rising, addressing these costs can be a key element in anti-poverty interventions by councils.

What interventions can your council make?

- Ensure that design and refurbishment of buildings and open spaces takes account of future changes in the climate and severe weather events such as heatwaves and floods.
- Work with communities at risk from flooding to establish community emergency plans.
- Encourage collective action by residents (e.g. ‘Green Neighbour’, ‘water efficiency’ or ‘collecting switching’ campaigns), which in turn can also build a sense of place.
Case studies

**Hampshire community resilience**

The floods which took place in Hambledon in 2000 had severe impacts on the community, and generated substantial costs to Hampshire County Council and partners, who were involved in the initial response and later remedial works. The investment in subsequent community resilience made by the council and Hampshire Fire and Rescue as part of the Hampshire and Isle of Wight Local Resilience Forum, meant that although the village still suffered significant disruption during the severe flood events of 2014, the number of houses flooded was reduced. This also meant that the community required less support from outside bodies during the event, and were better able to help themselves e.g. through cellar pumping.

**Eastleigh water efficiency campaign**

Eastleigh Borough Council has partnered with Southern Water on a water efficiency campaign for residents. This includes water metering, water butts and a ‘water use calculator’ to enable residents to work out exactly how much water they are using and how much they could save on bills. This helps local communities adapt to potential drought conditions in a changing climate. A quarter of domestic energy bills come from heating water - an average of £228 per year for a typical family.

**Plymouth energy community**

Plymouth Energy Community works closely with Plymouth City Council to address the needs of the fuel poor, including a bespoke energy tariff with Ovo Energy and free smart meters.
Why should your council take action?

Transport plays a critical role in how local residents live, work and play. It is vital to ensure highways and streets are able to cope with floods, snow and ice, or heat waves.

Many councils are responsible for maintaining highways and other roads (e.g. street cleaning, gritting, and fixing potholes). Severe weather can be a major drain on service budgets both in terms of the initial clean-up costs and ongoing maintenance.

Disruption to domestic and business travel arising from severe weather also diminishes the local economy’s productiveness. A survey by the Federation of Small Business (FSB) shows that the 2013/14 Winter storms hit firms with an average cost of £1,531, amounting to a total of £831m as a result of lost business, supply disruption and staff absences.

What interventions can your council make?

- Monitor and record the impact of severe weather on public services to assist with better planning, budgeting and external fundraising amongst local and regional partners (e.g. SWIMS). Consider using a tool such as HIRAM (Highways Infrastructure Resilience Assessment Tool) to assess and prioritise action on your local transport network in a changing climate, and provide a business case for infrastructure funding.

- Establish sustainable design guides in the Local Plan (e.g. drainage, resistance of surfaces to extreme cold or heat).

- Use Local Resilience Fora to help plan and coordinate your action during an emergency, including educating residents and businesses on alternative travel choices and consider local resilient travel network.
Case studies

Kent County Council Severe Weather Impacts Monitoring System (SWIMS)

Kent County Council has developed SWIMS to inform decisions by the council and its public service partners. The logging of responses to drought, heat waves, flooding or storms in Kent has enabled estimates to be made of total costs to public service providers, totalling £4.4m per year. This in turn guides future investments to meet long term resourcing requirements, estimated at £11.2m. £7.6m of this has been secured through external fundraising.

Hampshire’s Operation Resilience

Hampshire’s Operation Resilience aims to make more roads resilient to the effects of extreme weather and increasingly heavy traffic as part of a long-term strategy to future-proof the network. The resurfacing is likely to last 10 – 20 years, whereas standard surface dressing is likely to last 5 years maximum. The business case for the project showed that this approach would be far more cost-effective. The scheme is linked to the council’s flooding database, so that flooding issues can be addressed at the same time. The council came out top of all county councils in an independent National Highways and Transport (NHT) survey of residents’ satisfaction with local Highway Maintenance services.

Oxfordshire County Council flood risk reduction

Oxfordshire County Council joined forces with other agencies to secure government backing for a major £125m project to reduce flood risk to transport infrastructure and premises. The Western Conveyance Channel will allow water to pass through and around Oxford more efficiently. BMW, which employs 4500 people and supports a further 10000 through its supply chain, was badly hit by the closure of road and rail links in the 2013/14 winter floods. The contribution of major employers like BMW to the economy more than outweighs the cost of investing in the Channel.
Why should your council take action?

Councils are responsible for working strategically with the NHS as part of the local health and well being board, to help align services with the needs of local communities.

Severe heat or cold and flooding is a danger to health, especially for vulnerable groups such as the elderly and young children. One-fifth of homes in England could experience overheating even in a cool summer. Excess deaths from high temperatures are projected to triple to 7,000 per year on average by the 2050s¹. Flooding can also result in families’ homes being uninsurable or uninhabitable, resulting in a poverty trap.

Preventing harm can help identify efficiency savings for the councils’ health and social care budgets.

What interventions can your council make?

- Consult with council planners to establish sustainable design guides for developers in the Local Plan (e.g. energy efficiency or cooling in buildings, sustainable drainage)
- Develop integrated actions across the health and social care sector, e.g. make use of open source data to assist the Health and Wellbeing Boards to refresh their Join Strategic Needs Assessment (JSNA) and develop local Heatwave and Cold Weather Plans
- Encourage collective action among residents to improve community resilience (e.g. ‘Snow Angels' volunteers to sweep the paths of vulnerable neighbours or ‘collecting switching’ schemes which enable vulnerable households to consume more fuel for less).

¹ Adaptation Sub-Committee, 2014. Managing climate risks to well-being and the economy
Case studies

Leeds City Council Vulnerability Mapping Tool

Leeds City Council has developed a Vulnerability Mapping Tool to identify those residents most susceptible to the adverse impacts of severe weather, including extreme temperatures. One powerful output is a map of elderly persons’ access to GPs in heat waves. Heat increases the number of visits to GPs and hospitals, calls to the NHS and social care referrals. This leads to costs to health and social care providers, including councils, of £266 to £625 per patient per day.2

Islington ‘seasonal health referral network’

Islington Council worked with University College London and local community groups to identify households which were most vulnerable to heat and cold. They have now developed a ‘seasonal health referral network’, whereby those providing services from the voluntary or community sector are able to refer service users’ details to the Seasonal Health & Affordable Warmth team at the council. Working with Groundwork London, they provide advice and ‘keep cool’ packs with information and equipment to help residents protect their health during hot weather. A severe weather broadcast system and telephone check-up service have also been implemented to reach vulnerable residents. This activity supports the integration of healthcare services with social care, by working together to assess risks and identify mutually beneficial action for service users.

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Service briefing: Education and Skills

Why should your council take action?

Extreme weather can hit schools hard, be it flood damage to property, staff absence from travel disruption, or resource inefficient buildings which are either too cold or hot from one season to the next.

Investment in building improvements can often be recouped through lower utility bills.

The global market for goods and services which help to develop climate resilience (e.g. flood modelling and flood protection) was worth £2.1 billion in 2011, with over 21,000 employees in the UK, and the sector has a forecasted UK growth rate of 7.1% by 2017-18'. Providing skills development and apprenticeship opportunities in these fields can enhance career potential.

What interventions can your council make?

✓ Work with schools through the ‘Eco-School’ or ‘Sustainable School’ programmes, to inform the way schools incorporate sustainability principles in the management of premises and the teaching curriculum.

✓ Establish revolving funds for schools to invest in retrofitting measures for buildings. Even if each individual school budget is ring-fenced by governors, the savings from the investment could be returned to or shared with the council.

✓ Partner with the LEP and with higher education establishments to explore the potential for up-skilling young people or tapping into high skilled job opportunities in the low carbon and environmental goods and services market.

Case studies

Newcastle ‘Science Central’
Science Central is Newcastle’s new landmark location for science, business, living and leisure. Spanning 24-acres of prime city-centre mixed-use development land, this new urban quarter will become an exemplar in sustainability, with buildings incorporating green walls, sedum roofs and rainwater collection. Phase one of the development is now complete, including the first building The Core which opened in November 2014, winning a CEEQUAL ‘Excellent’ design award for improving sustainability in civil engineering, infrastructure, landscaping and public realm, backing up its green credentials. Science Central is being delivered by a long term partnership between Newcastle City Council and Newcastle University. For information visit www.newcastlesciencecentral.com.

Wirral water consumption reduction
Wirral Borough Council worked with Riverside Primary School to make a positive impact on the environment and generate extra funds by reducing their water consumption. The installation of urinal controls at the school cost just £480 but generated average savings of 2033 litres of water per day, which equated to financial savings of £1335 per annum. This meant the units had paid for themselves just 3 months after initial installation, generating an average of 40% savings; and the school was able to use some of this money towards new equipment.

Blaenau Gwent: British Gas Green Skills Training Centre
Blaenau Gwent County Borough Council is a key partner in the British Gas Green Skills Training Centre. The Centre aims to train more than 1300 people each year (including local long-term unemployed people). Developed in partnership with the Welsh Assembly Government, JobMatch, Jobcentre Plus, and Summit Skills, the state-of-the-art centre offers training and qualifications for would-be assessors and installers of new green technologies as well as providing opportunities for British Gas engineers to increase their skills.
Why should your council take action?

There is an opportunity for councils to derive multiple benefits from investing in environmental services (parks, open space, waste and water). They can play a key role in managing the impacts of severe weather and a changing climate.

Thinking and practice on green (planting) and blue (water) infrastructure is moving on from delivering ecological and social benefits to their role in also delivering economic and financial benefits.

According to Natural England, views of landscapes can increase land values by 18%¹, and biodiversity can counter soaring temperatures in densely populated areas and reduce energy use for cooling and heating by 10%². There is an opportunity for Environmental Services to investigate opportunities to deliver joint outcomes with Regeneration or Place teams to do more with less.

Flooding events can lead to significant extra costs for councils in the form of landfill charges for dealing with flood damaged property.

What interventions can your council make?

✓ Consult with councils planners to establish sustainable design guides for developers in the Local Plan (e.g. tree planting, sustainable drainage)

✓ Work across council services to understand the financial, social and environmental benefits of the natural environment (assessment of natural capital).

✓ Partner with the councils’ Place team to encourage collective action amongst residents (e.g. Flood Warden Groups, or ‘Green Neighbour’ schemes).

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². UN-Habitat, 2013, Urban Planning for City Leaders.
Case studies

Liverpool City Council Community flood group

Liverpool City Council is a participant in the Defra Flood Community Resilience Pathfinder programme. Environmental and emergency planning teams joined forces with local residents to build community capacity to respond to floods. This included raising awareness of the value of taking action and helping to establish a Community Flood group to aid self-sufficiency.

Glasgow City Council: White Cart Flood Prevention Scheme

Glasgow City Council participated in the White Cart Flood Prevention Scheme to protect 1750 homes and 45 businesses. New dams prevent £100m of damage along the river through an investment of £53m (lifetime costs). In addition to economic benefits it will lead to the restoration of 90,000 sq m of bio-diverse habitat, including new species. The scheme is supported by the Metropolitan Glasgow Strategic Draining Partnership (MGSDP), which includes the council, Scottish Water, Scottish Environment Protection Agency and others.

Portsmouth City Council’s Portsea Island Coastal Strategy

Portsmouth City Council’s Portsea Island Coastal Strategy sets out the long term strategic approach to managing the area’s coastline. It is expected to be part-funded by the council’s Community Infrastructure Levy.