

Our Local Authorities

Local Authorities have a key role in preparing for climate change and adapting to its impacts. The publication 'Community leadership and Climate Change' helpfully identifies three principal roles for local authorities in relation to climate change.

As service providers local authorities are responsible for a range of functions which include:



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| Development Planning/Land Use Planning | Economic Development |
| Transport (GTPs) | Social and Economic Regeneration |
| Development Control | Education, Culture, Libraries etc |
| Housing (both as landlord and enabler) | Tourism and Leisure |
| Building Control | Urban Design and the Street Scene |
| Engineering including drainage | Environmental Health and Pest Control |
| Roads maintenance, snowploughs, salt, etc | Waste Management |
| Conservation of buildings, parks, trees etc | Emergency Planning |

As corporate managers councils have responsibility for all of the functions that fall upon any large organisation. These include:

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| Buildings and other Estate Management | Risk Assessment and Management |
| Vehicles | Environmental Management |
| Procurement | Potential Litigation |
| Personnel Management | Health and Safety |

As community leaders councils are called upon to be pro-active with regard to the following, both in a leadership role, and as examples of good practice.

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| Strategic Vision for community | Regeneration |
| Social, Economic & Environmental well-being | Sustainability Strategy for community |
| Economic Development | Climate Change Strategy for community |
| Community Planning | Nottingham Declaration on Climate Change |

Local Authorities - Recommendations and actions

The following are recommendations for areas within which change can be initiated by local authorities:

- Support the national initiatives on climate change already begun by the Local Government Association (LGA), the Improvement and Development Agency (I&DeA) and the Society of Local Authority Chief Executives (SOLACE), including signing up to the Nottingham Declaration on Climate Change.
- Encourage officers in relevant local authority departments to pursue further climate change understanding through their networks of professional bodies, local government officers and the LGA.
- Encourage sub-regional groupings of county, district and unitary authorities to share best practice in both technical and managerial aspects of adaptation and to undertake a more detailed exploration of UKCIP climate scenarios and their implications for sub-regional locations.
- Explore the most effective policy framework(s) within which adaptation responses might sit. In particular, investigate the suitability of Local Strategic Partnerships (LSPs) and Community Strategies/Community Plans as appropriate vehicles.
- Consider the implications for their local communities of potential lifestyle changes resulting from climate change.

'We commit our council to work with key providers to assess the potential effects of climate change on our communities and to identify ways in which we can adapt'

clause from Nottingham Declaration on Climate Change



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The Way Forward

The South West Climate Change Impacts Partnership is committed to taking forward the issues identified in their scoping study. The Partnership will work to ensure that consideration of climate change is built into strategic plans for the region.

This is only the beginning of an ongoing process to ensure the South West is at the forefront of progress towards adapting to climate change.

Recommendations and actions

- Review the role of the South West Climate Change Impacts Partnership to take forward regional work on climate change.
- Ensure that the main findings and recommendations of the Scoping Study are incorporated into current and future strategies and frameworks within the region.
- Ensure that the South West Climate Change Impacts Partnership continues to have an overall understanding of South West regional work on climate change impacts and adaptation, and to act as a focal point for that information.
- Encourage all organisations to identify appropriate policy frameworks within which to incorporate adaptation strategies.
- Increase awareness of the need for climate change adaptation across all sectors. Most stakeholders are ill-informed about, and ill-prepared for, dealing with the potential impacts of climate change.
- Ensure that simple messages are conveyed to the media because conflicting messages can create confusion on the direction and magnitude of climate change.
- Identify and take forward specific projects for action:
 - Review regional and sub-regional arrangements for emergency planning in anticipation of extreme weather events.
 - Co-ordinate the development of climate change strategies within local authorities.
 - Co-ordinate the development of climate change strategies within sectors in the region, such as sustainable construction, environmental technologies and biodiversity, particularly through the sector development programmes of the SWRDA.
 - Identify those issues at a regional level where central government action is required. Ensure that relevant standards and codes of practice are based upon the probabilities of future climates rather than the apparent certainties of historic data.
 - Undertake further research within selected sectors to better understand the significance of local impacts.

Summary of climate change impacts

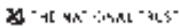
| | |
|--|--|
| Agriculture, horticulture and forestry | |
| <p>Opportunities</p> <p>Longer growing season providing increased yields</p> <p>Potential for new crops (grapes, navy beans, sweetcorn, soya and sunflowers)</p> <p>Reduced frost damage should increase productivity</p> <p>Potential increased growth rate (eg for forest trees)</p> <p>Opportunities for new forestry planting in floodplains to mitigate flooding</p> | <p>Challenges</p> <p>Reduced die-off of pests and diseases due to warmer winters</p> <p>Decreased soil quality and increased erosion due to increased run-off from winter precipitation</p> <p>Need for increased irrigation in summer</p> <p>Possible wind and storm damage to standing crops and nursery stock</p> <p>Increased heat stress to poultry and livestock</p> <p>Potential loss of South West's competitive advantage</p> |
| Coastal issues and marine fisheries | |
| <p>Opportunities</p> <p>Increased tourism in coastal zones may boost local economies</p> <p>Increased marine activity, water sports, surfing etc</p> <p>Increased scope for aquaculture of new species of fish and shellfish</p> <p>Some fisheries may be enhanced by longer breeding season</p> | <p>Challenges</p> <p>Increased rate of coastal erosion and silting of estuaries</p> <p>Loss of natural assets in the coastal zone eg wetlands and beaches</p> <p>Reduced overall productivity of oceans, and loss of some commercial species (fish and shellfish)</p> <p>Deterioration in water quality and increase in algal blooms</p> <p>Increased run-off and leaching from land, damaging flora and fauna in coastal zones</p> <p>Pressures arising from increased tourism in coastal zones</p> |
| Biodiversity | |
| <p>Opportunities</p> <p>Flora and fauna species with pronounced southern distribution to become more widespread</p> <p>Integrated land management to aid nature conservation</p> | <p>Challenges</p> <p>Risk to species vulnerable to drought</p> <p>Risk to species requiring sub-zero period to break seed dormancy</p> <p>Risk of expansion of naturalised aliens (eg Fuschia in Cornwall)</p> <p>Increased visitor pressure on natural environment</p> <p>Loss of coastal and estuarine habitats due to increased rate of coastal erosion and invasion</p> <p>Threat to Chesil Beach and saline lagoon, and silting of estuaries</p> <p>Increased incidence of fire in hot dry summers</p> |
| River flooding and drainage | |
| <p>Opportunities</p> <p>Introduction of sustainable urban drainage systems</p> <p>Commercial opportunities in flood defence and flood management</p> <p>Opportunity to integrate estuarine and coastal flood defence</p> | <p>Challenges</p> <p>Increased risk of flooding from increased rainfall and possibly more storms</p> <p>Improvements and higher specification required for flood defences</p> <p>Improvements and higher specification required for urban drainage and rainwater disposal systems</p> |
| Water resources and water quality | |
| <p>Opportunities</p> <p>Increased supply available in winter but needs capturing and storing</p> <p>Greater potential for one-season recharge of larger reservoirs and aquifers</p> <p>Greater potential in winter for increasing water releases to hydropower</p> | <p>Challenges</p> <p>Increased evaporative losses from surface water stores</p> <p>Increased demand for water in summer</p> <p>Higher concentrations of pollutants in watercourses from reduced summer rainfall</p> <p>Increased risk of algal blooms and pollution in reservoirs with reduced water levels and low inflows in summer</p> <p>Potential for saline incursions into coastal water abstraction plants and boreholes</p> <p>Increased risk of sediment and pollution runoff into watercourses caused by changes in farm management practices adopted to adapt to climate change</p> |
| Built environment and housing | |
| <p>Opportunities</p> <p>Reduced heating demand, especially in winter, and therefore reduced heating costs</p> <p>Commercial opportunities for developing regional expertise in passive solar heating, cooling, shading and other environmental technologies</p> <p>Increased scope for outdoor activities around buildings, especially in summer</p> <p>Increased potential for renewable sources of energy (eg passive solar)</p> <p>Increased need for shading (eg more trees in urban streets and squares)</p> | <p>Challenges</p> <p>Planning and design of new buildings in locations vulnerable to flooding</p> <p>Potential overheating of interior environment in existing and new buildings in summer will require sustainable solutions to cooling</p> <p>Increased subsidence and associated insurance claims due to drying out of substrata (especially in clay areas)</p> <p>Structures under construction vulnerable to storm damage in exposed locations</p> <p>Increased summer demand for water</p> <p>Design standards will need to be revised in light of new climate scenarios</p> |



Summary of climate change impacts

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| Transport | |
| <p>Opportunities</p> <p>Increased scope for walking and cycling for everyday travel and tourists</p> <p>Improved rail and road infrastructure to provide alternative and diversionary routes in case of extreme climate events</p> <p>Less frost damage to roads from winter cold; less need for road salting</p> <p>Fewer ice/snow related accidents on roads and footpaths</p> <p>Fewer ice/snow related points failures on railways</p> | <p>Challenges</p> <p>Increased pressure on transport systems from more tourists</p> <p>Flood risks (including flash floodsto roads) disrupting roads in some major towns</p> <p>River/coastal flooding and landslip threats to railways</p> <p>Increased threat of storm damage to road and rail</p> <p>Some disruption to air traffic (eg air links to Scilly Isles and from Cornwall to London)</p> |
| Utilities | |
| <p>Opportunities</p> <p>Reduced heating demand, especially in winter may lead to lower bills for consumers</p> <p>Commercial and environmental opportunities for developing renewable energy production (wind, tidal, bio-mass, bio-fuels, solar)</p> <p>Commercial and environmental opportunities for passive solar heating, cooling, shading and other environmental technologies</p> <p>Increased potential for renewable sources of energy (eg passive solar)</p> | <p>Challenges</p> <p>Increased tourism, in summer and winter, will increase demand on utilities</p> <p>Potential summer overheating of buildings will require sustainable solutions to cooling</p> <p>Utilities infrastructure is vulnerable to storm damage in exposed locations</p> |
| Health | |
| <p>Opportunities</p> <p>Generally less ill health due to reduced cold conditions</p> <p>Reduced winter mortality (eg from hypothermia)</p> <p>Healthier lifestyles due to increased opportunities for outdoor activities</p> <p>Fresh, healthy and locally-produced food available for a longer period</p> <p>Less risk of injury due to falls on ice</p> | <p>Challenges</p> <p>Increased risk of food poisoning</p> <p>Increased risk of sunburn, heatstroke, and exposure to UV radiation (skin cancer)</p> <p>Increased risk of heat exhaustion and dehydration in summer</p> <p>Risk of deterioration in water quality and increase in infection</p> <p>Higher air pollution in urban locations leading to respiratory disease</p> <p>Increase in some diseases (eg Lymes disease from ticks)</p> |
| Tourism and leisure | |
| <p>Opportunities</p> <p>Longer, more reliable summer season leading to increased visitor numbers and visitor spend</p> <p>Warmer winters, leading to a more year-round tourist season</p> <p>More outdoor and water-related recreation</p> <p>Potential increase in UK holidays, urban tourism and city breaks as Mediterranean destinations become too hot</p> | <p>Challenges</p> <p>Increased demand on transport and utilities infrastructure due to increased visitor numbers</p> <p>Coastal attractions vulnerable to sea level rise and storms</p> <p>Increased visitor pressure on natural environment</p> <p>Threats to historic gardens of changing habitat and species</p> <p>Storm and flood damage to caravan sites and other tourist infrastructure</p> |
| Environmental technologies and Biotechnology | |
| <p>Opportunities</p> <p>Commercial and environmental opportunities for passive solar heating, cooling, shading and other environmental technologies and expertise</p> <p>Commercial and environmental opportunities for pollution monitoring and control technology and expertise</p> <p>Genetic modification of crops (eg to resist summer drought)</p> | <p>Challenges</p> <p>Operational difficulties for equipment at high temperatures</p> <p>Changes to water supply and quality will restrict water intensive activities</p> <p>Increased demand for 'greywater', water treatment and new water-efficient technologies and expertise</p> |
| Financial services | |
| <p>Opportunities</p> <p>Reduced insurance claims arising from cold weather conditions</p> <p>Investment opportunities resulting from increased economic activity (eg tourism)</p> <p>Investment opportunities resulting from new market opportunities (eg environmental technology)</p> | <p>Challenges</p> <p>Increased insurance risk due to flooding, landslips and subsidence</p> <p>Higher insurance costs generally and potential for insurers not to provide cover to certain locations, premises, and activities</p> <p>Increased insurance costs of storms and impacts on transport, infrastructure, business and property</p> <p>Increased marine and offshore impacts and related investment and insurance losses</p> |
| Food and drink | |
| <p>Opportunities</p> <p>Availability of new crops and species in the region, reducing import costs</p> <p>Developing new markets for local produce, especially new local varieties</p> <p>Increased consumption of warm weather food and drinks leading to new markets</p> | <p>Challenges</p> <p>Increased demand for cooling with associated environmental and financial costs</p> <p>Increased bacterial build-up in foods leading to health risks and associated litigation</p> <p>Loss of some traditional species and crops</p> <p>Impacts on transport infrastructure especially ports, affecting distribution to and from markets</p> |

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This report was commissioned by the South West Climate Change Impacts Partnership. It is a summary of a stakeholder-led Scoping Study carried out on behalf of the Partnership.

This study is one of a number linked to the UK Climate Impacts Programme which helps organisations assess how they might be affected by climate change so they can prepare for its impacts.

The South West Climate Change Impacts Scoping Study was carried out by:

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Further Information:

Copies of 'Warming to the idea', the SW Region Climate Change Impact Scoping Study can be found at www.oursouthwest.com/climate and at www.ukcip.org.uk/south_west/south_west.html

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The Steering Group for the study included representatives of:

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