°Climate east midlands

Weathering the Storm – Saving and Making Money in a Changing Climate

A Practical Guide for Small Businesses in the East Midlands

Updated 2012



This guide has been updated and published by Climate East Midlands, November 2012.

It has been adapted from a concept originated and developed by the following funding partners within the West Midlands, in collaboration with the UK Climate Impacts Programme (UKCIP) and the Government Office West Midlands:

The West Midlands Climate Change Adaptation Partnership Advantage West Midlands The Environment Agency Business Link West Midlands DEFRA

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How to use this guide

This guide has been produced for small and medium businesses (SMEs) in the East Midlands. It will help you to understand how you could be affected by weather, including extreme events, and how you can improve your chances of a quick recovery. The guide also sets out business opportunities from responding to a changing climate, and provides useful tools and contact information.

To get the most out of this guide:

- Read the introductory sections on why climate change is relevant now, what the key impacts can be and what is in it for your business.
- Read the section on how to prepare for extreme weather events. This is split into topics such as insurance, your premises and your people. For each topic, the guide asks a series of questions to help you think about how you might be affected and identifies a series of simple and low cost actions you could take.
- Do you need more advice? Refer to the tools and contacts section.

The information in this guide has been focused on actions that are relatively easy for small businesses to achieve, tackling issues that are within your control or influence. You might not be able to stop flooding or an extreme storm event affecting your business, but you can take a few simple steps to reduce the impact these might have on your business so that you can remain operating. The list of suggested actions is not exhaustive and ticking all the boxes does not guarantee you are resilient. You must consider your specific circumstances.

There may also be opportunities that organisations can take advantage of, including identifying new markets or products through to saving money from effective resource efficiency. Further suggestions on how to identify these are presented towards the end of the guide on page 16.



What do I need to know?

What are the effects of a changing climate likely to be?

More frequent and severe flooding

The majority of flooding is caused by heavy rainfall which can lead to rivers overtopping their banks or drainage systems being unable to cope with the volume of water. In the East Midlands, the estimated increase in average winter rainfall is 6 % by the 2020s.

The period from April to June 2012 was the wettest on record, and 2012 saw the wettest summer in 100 years. The BBC reported that this cost Britain's rural economy $\pounds 1$ billion. Farmers, tourist businesses and events organisers were affected.

The floods of 2007 cost Lincolnshire County Council £1.85m in roads and property damage, closed 6 schools and caused bus services to be cancelled or delayed. They also caused disruption to major infrastructure such as the closure of the M1 at J30.

Do you know if your business (or key employees' homes) are in a flood risk area? If so, would your business survive a serious flood? How would electric and computer systems, stock and machinery be affected? How long would it take to recover?

Hotter summers and milder winters

In 2003 and 2006 we had extreme summer temperatures in the East Midlands. The heatwave in 2003 killed about 2,000 people in the UK and the frequency of hotter summers is expected to increase. Increasing temperatures have also softened road surfaces and disrupted travel connections.

In the East Midlands, it is estimated that the average summer temperature may increase by 1.4° C by the 2020s.

In urban areas hotter summers may lead to the urban heat island effect - where buildings and other developments retain heat, adding several degrees to the temperature in built up areas. For your business, this could affect working conditions for staff and cause equipment to overheat. Increased temperatures could also affect agriculture, changing the growing season and the types of crops that can be grown. It may also change the nature of pests and diseases. In the East Midlands, it is estimated that the average winter temperature may increase by 1.3° C by the 2020s. Milder winters may bring some benefits, but cold spells will still occur. The heavy snow in November and December 2010 closed 24 schools in Derby.

Drought

A 4% reduction in summer rainfall is estimated by the 2020s which, combined with increased temperatures, could result in more droughts in the East Midlands. Water shortages, particularly in the summer, could become more frequent.

To what extent does your business depend on water? Are there ways that you could use water more efficiently and save money?

Storms and wind

Storm events can cause severe short term impacts including disruption to services. Northamptonshire experienced 66 extreme weather events between 1998 and 2008, causing the county council £1.33m of property insurance claims excluding costs due to loss of service provision and staff time.

The frequency and severity of storms and strong winds may change. However, there is currently no evidence to suggest an increase in the frequency or severity of storms or strong winds up to the 2050s.

Note: The above estimates of how the climate is likely to change are taken from the UK Climate Projections 2009 (UKCP09). The projections are based on emissions scenarios, and show a range of possible outcomes and the probability of each outcome. The figures quoted above are the central estimates based on the high emissions scenario. For more information on UKCP09 see http://ukclimateprojections.defra.gov.uk/



Are the weather and climate relevant to mγ business?

A review of weather across the East Midlands over the last ten years shows that we have already experienced extreme weather events. Some of these events have had devastating impacts on people's ability to go about their daily activities. Many of the events to date have been flood related and we may see more of these events, and a wider variety of impacts, as our climate changes.

- The East Midlands has the third highest number of properties at risk of flooding from rivers and the sea in any of the English regions and is fourth largest in terms of area at risk of flooding.
- According to the ABI*, after the flooding in June and July 2007 insurers received 165,000 claims in the UK, estimated to total £3bn in insured damages. But the economic and social costs were far higher, as not all costs to businesses can be insured.
- An ABI* study revealed that 80% of businesses that do not have an emergency plan in place do not recover from a major incident such as a flood, even where insurance is in place to cover financial losses.
- AXA* research indicates that the average length of business interruption by flooding has increased from 8 months in 1996 to 14 months in 2005 as businesses become more complex and flooding more frequent.
- The 2007 floods cost East Midlands farmers tens of millions of pounds in lost crops, with several individual farmers losing half a million pounds each. Losses were in vegetables and potatoes in Lincolnshire and Nottinghamshire, and combinable crops (wheat, barley, oil seed rape) and grass where the rain fell heaviest (NFU).
- According to Farming Futures' Climate Change Survey 2011, 43% of respondents saw "unpredictable weather" as the climate change risk most likely to affect their business. 50% of respondents thought climate change would present risks and opportunities in equal measure.

Preparing for a changing climate makes good business sense. Experience in the East Midlands has shown that extreme weather could have some serious consequences for your business operations: not just for your premises and staff, but also by disrupting your suppliers, distribution or customers.

*ABI –Association of British Insurers *AXA – worldwide leader in financial protection



So, what's in it for my business?

Like any other issue facing your business, it is important to understand how extreme weather and climate change impacts could affect you. Planning ahead rather than responding reactively will help you to:

- save your business money in the long term;
- give your business the best chance to continue to operate and meet customer orders, in spite of the weather; and
- identify possible business opportunities e.g. new products or services, reduced costs etc.

What can I do to prepare?

Understanding how your business will be affected by weather and climate change impacts is a crucial first step, but what should you do next? The following pages cover some common issues, questions to ask yourself and where to go for more information.

A number of these issues are common to all SMEs, regardless of your business sector. However, agriculture, horticulture and other rural businesses may face different challenges to urban businesses and therefore we have provided a separate section on page 13.

We have focused on actions that are relatively easy for a small business to achieve, tackling issues that are within your control or influence.

Whilst some of the actions will have an initial cost they should save you money in the long term.

Case Study: Derbyshire and Nottinghamshire Chamber of Commerce

Derbyshire and Nottinghamshire Chamber of Commerce (DNCC) is a membership organisation with around 140 employees, which provides a range of commercial products, services and activities to members and external clients from a number of sites across both counties. As such, it is crucial that the Chamber can provide continuity of service to its members and customers at all times.

A number of DNCC's sites were affected by adverse weather conditions for prolonged periods during the winter months in 2010 and 2011. This included staff being unable to make it into their usual place of work because of the state of the roads, and staff needing to leave work early to get home before heavy snow started to settle.

In order to ensure that business disruption is kept to a minimum, DNCC has developed a robust business continuity plan aimed at reducing the impacts of extreme weather conditions.

As a multi-site organisation, DNCC's IT and telecoms infrastructure is flexible enough to allow staff to work from an alternative office or from home, if they can't get to their usual place of work.

DNCC regularly communicates the business continuity plan to its employees, and tests the plan on a six monthly basis to ensure it is fit for purpose.



Photo courtesy of Derbyshire and Nottinghamshire Chamber of Commerce

Insurance

Ask yourself:

- When did you last check that you have the insurance you need?
- Are you covered for floods and storm events?
- Do you have business continuity cover if your business is interrupted?
- Does your insurance policy replace new for old or have limits for repairs?

Take action:

- Check your insurance cover at least annually.
 Confirm that you have a policy that covers the full value of your business and keep documents safe from weather impacts (and store copies off site).
- Check that buildings and content insurance covers flooding and storms.
- Check if you have business continuity insurance that will cover you whilst you cannot do business.
- Catalogue your assets (could include photographs or video).
- Make sure that the period of time that you are insured for is adequate. In the case of a major flood, for example, there can be long delays while property dries out and affected customers return to do business with you.

Further information:

- Check with your own insurance broker for more information, or contact the Association of British Insurers (ABI) at http://www.abi.org.uk or 020 7600 3333, or the Federation of Small Businesses (FSB) on 0808 2020 888.
- The link below provides information on the types of insurance SMEs may need, including property, employees and financial risk (Insurance for Small Businesses: A Guide To Protecting Your Business): http://www.abi.org.uk/Information/ Business/40507.pdf
- There are other types of insurance you can consider such as: engineering insurance to repair/ re-instate machinery and computers; goods-intransit insurance to cover goods whilst they are being moved; frozen food insurance which covers you if there is a failure of the public electricity supply; others such as glass insurance, cancelled event insurance etc.

Don't forget to take into account the length of time an insurance payment could take and potential cash flow problems. A loss adjuster may need to visit.

NOTE: If your property is not fully insured for the right sum, but only 50%, say, then you will only be paid 50% of your claim. Some companies waive this condition for buildings, so it is important to check!



Premises

Ask yourself:

- Do you know if you are in an area at risk from flooding or flash flooding? Remember that climate change means that risks will change.
- If you are currently located in a flood risk area, do you have appropriate flood resistance and resilience measures (for example, sandbags, plywood or metal barriers)?
- If you are moving premises, check whether the location is within a flood risk area.
- Are you about to sign a long term lease agreement which would make it difficult to relocate? If you are, have you checked if you can afford the relevant insurances, including business continuity insurance?
- Do you have the equipment to clean up after an extreme weather event? Are you able to purchase this now?
- If your premises are damaged by extreme weather, think about re-instating it to a higher standard of resilience to prevent the same damage happening again.
- Have you considered whether you could operate from alternative premises if you had to?
- Are there mutual weather warning systems that you could share with neighbouring businesses? Can you share alternative suppliers, accommodation, etc?
- How well do your buildings and building services cope with high temperatures?
- Could increased chances of subsidence affect your business?
- Prolonged clean-up operations arising from stormwater contaminated with sewage is a particular problem for restaurants, takeaways, doctors etc.

Take action:

- Before you sign a lease, make sure you are comfortable with the lease conditions. If you are in a flood risk area, consider the length of the agreement and potential implications.
- When upgrading your premises, for whatever reason, consider ways to make your property more resilient to severe weather. You could, for example, consider relocating to a lower risk area (higher ground, not on a flood plain, etc).

Further information

- Is your business at risk of flooding? Find out now, call the Environment Agency Floodline on 0845 988 1188 or visit www.environment-agency.gov. uk/113798.aspx
- The Environment Agency publication "Would your business stay afloat? A guide to preparing your business for flooding" contains a simple template to use to create a flood plan for your company: http://www.environment-agency.gov. uk/business/topics/flooding/32362.aspx
- The Met Office provides weather forecasts Tel: 01392 885680. http://www.metoffice.gov.uk
- Ask your plumber for advice. A list of local plumbers in the East Midlands can be found here: http://www.yell.com/s/plumbers+merchantseast+midlands.html
- More information is available on the repair and restoration of buildings following extreme weather at CIRIA's (Construction Industry Research and Information Association) website: http://www.ciria.org/flooding

Do not assume that because the Environment Agency does not identify your area to be at risk of flood that you are not. You may still be at risk from flash flooding, surface water or groundwater flooding.

Other practical measures you can take include:

- Move electrical sockets to above the flood level and separate electrical circuits.
- Lay ceramic tiles on the floor and use rugs instead of fitted carpets.
- Use lime plaster instead of gypsum.
- Fit stainless steel or plastic kitchens instead of chipboard.
- Position main parts of a heating or ventilation system upstairs, above the ground floor.
- Consider replacing vulnerable wooden window frames and doors with synthetic ones, but seek advice for listed buildings or conservation areas.
- Fix floodboards to window and door frames.
- If you are in a high flood risk area, fit back-flow devices to drains and sewers.
- You can check the Environment Agency's website to identify if you are in an area at risk of flooding from rivers and the sea. Enter your postcode at the following web address: http://www.environment-agency.gov.uk/

homeandleisure/floods/31650.aspx

- You can also sign up to the Environment Agency's free 24 hour Floodline Warnings Direct Service. Warnings can be sent by phone, text, email, fax or pager. The more warning you have, the more time you have to prepare and protect your business. Tel: 0845 988 1188 (Floodline). http://www.environment-agency.gov.uk/ homeandleisure/floods/38289.aspx
- Plastic covers can stop flood water coming through air bricks. Equipment such as pumps, driers and dehumidifiers will aid the clean up after a flood. If you have these prior to a flood it will save you time. Consider sharing the cost of equipment (e.g. a water pump) with your neighbours.
- Sandbags and pre-prepared plywood or metal barriers can reduce flooding around doors. Using a blanket or silicone sealant around the barrier can also help. If sandbags are in short supply you can buy your own sand and bags or use pillowcases/plastic bags. However, note that a flood may contaminate these items with sewage so they should not be reused. Alternatively, demountable flood defences are also available.
- Check buildings maintenance, gutters, drains and culverts.

Well, I'm pretty much the same as everybody else really. We lost vehicles, stock, we lost our office stuff and everything else, and emotionally it was really hard to come to terms with losing 35 years of business.

(Source: Climate Change and the Effects on Small Businesses in the UK, AXA, 2006)

People

Ask yourself:

- Are your staff vulnerable to extreme temperatures (heat and cold) and have you considered risks such as fainting, injury and reductions in efficiency?
- Do your staff have any medical conditions (such as high or low blood pressure, heart disease, epilepsy or diabetes) which might be made worse by extreme temperatures (hot or cold)?
- Have you considered other people that could be at risk, such as nursing or expectant mothers, outside workers, manual workers who are physically active, kitchen staff or staff operating equipment or machinery?
- Are there any areas where slips and falls could occur during extreme cold or rainfall?

Further information

- The NHS provides advice on the risks of heatwaves and how to prepare: http://www.nhs. uk/Livewell/Summerhealth/Pages/Heatwave.aspx
- The Health and Safety Executive (HSE) provides information on work place temperature requirements: http://www.hse.gov.uk/ temperature/index.htm
- The Institution of Occupational Safety and Health (IOSH) provides a free information line to the public with staff that can advise on business risk management and environmental issues. Call the IOSH helpline on 0116 257 3199 or email techinfo@iosh.co.uk More info can be found on their website: http://www.iosh.co.uk

Take action:

- Identify individuals with medical conditions and increase awareness of the impact of extreme temperatures amongst staff.
- Ensure that you have identified your legal obligations and understand your liabilities with respect to working conditions in the workplace. See the link to the Health and Safety Executive (HSE), which includes information on thermal comfort and outdoor working.

In very high temperatures:

- If the task allows, encourage workers to wear suitable summertime and comfortable clothing to work to minimise discomfort.
- Install thermometers and identify cool areas.
- Insulate high temperature pipes and plant.
- Ensure there is good ventilation and encourage regular breaks (provide water and ice).
- Moving workstations away from direct heat and fitting external shutters can help reduce glare.
- If you do not have suitable air conditioning equipment and do not wish to install it, consider other ventilation and working-from-home options.

In very low temperatures:

- Ensure that you have grit/salt supplies and that adequate gritting of access routes is undertaken in snowy and icy conditions.
- For outside workers, increase breaks to avoid hypothermia and consider other measures such as cold weather clothing.
- Encourage staff to wear appropriate footwear to prevent slipping on ice.



Outdated and overloaded sewage and drainage systems will not be able to cope with sudden intense rain falls, adding to flooding costs in urban areas...

(Source: Climate Change and the Effects on Small Businesses in the UK, AXA, 2006)

Utilities

Ask yourself:

- If your pipes freeze, are they vulnerable to bursting?
- What would you do if your business was cut off from the mains power supply?
- Do you know how to turn off the gas, electricity and water supplies to your business?
- Does your business depend on water? If there was a drought and a resulting hosepipe ban or other restrictions, would you be able to continue to do business? Water companies have a legal duty to supply households, but not businesses.
- How will your business be disrupted if your phones don't work?

Take action:

- Talk to your plumber on ways to avoid burst pipes or reduce the damage.
- Consider alternative power supplies such as solar or standby/back-up generators. There may be grants available for energy-saving/energy efficiency projects which will save you money on energy bills in the long run and also make your business more resilient to power cuts.
- Talk to your suppliers to find out how to turn off the water, gas and electricity to your business. By turning them off before a flood or storm, you may reduce the amount of damage.
- Consider alternative water supplies, such as installing water tanks to store rainwater. This can also save you money and help reduce your carbon footprint.

Further information

- Gas suppliers in the East Midlands: http://www.yell.com/s/gas+supplierseast+midlands.html
- Electricity suppliers in the East Midlands: http://www.yell.com/s/electricity+supplierseast+midlands.html
- Water suppliers in the East Midlands: http://www. yell.com/s/water+suppliers-east+midlands.html
- Gov.uk has replaced the Business Link website as the source of Government services and information for businesses: https://www.gov.uk Business Link helpline tel: 0845 600 9006

Information technology and security of data

Ask yourself:

- Flooding, storms or power surges could damage computers and electronic files could be lost.
 Do you have a back-up and is it saved in a safe, separate location?
- If your computers were unavailable, what processes would be affected (e.g. orders, payroll, contacts etc) and would your business still function?
- What alternative arrangements do you have to access vital data?
- If your staff are unable to get to work, either because homes or working premises are affected by snow, floods or storm damage, can you continue to do business? Can they work from home, with access to IT?
- Is your server room vulnerable to extreme temperatures? Do you rely on air conditioning to keep cool, which can be vulnerable to power cuts?
- Can you cope with lost orders and enquiries?

Take action:

- Regularly back-up your computer files to disc or other saving device and store this in a safe place, separate from your computer's hard drive, ideally in a separate location.
- Check if your employees have broadband and other equipment at home to enable them to work from home if necessary.
- Consider getting a server with remote access so that key staff can access your computer files from any computer.
- Review the location of your key IT equipment to identify if it is at risk from increased temperatures and/or flooding.

Further information

 Seek advice from your hardware and software provider on how to back-up your files, how to access your computer systems if they are damaged at your premises and how to access your computer files remotely.

If office temperatures reach 32° Celsius, productivity decreases by 29%.

(Source: Climate Change and the Effects on Small Businesses in the UK, AXA, 2006)

Photo courtesy of AECOM

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Suppliers, logistics and delivery

Ask yourself:

- What happens if your suppliers cannot get to you because of weather-related disruptions?
- What would happen if you could not get your products or services to your customers because of weather-related disruptions to road, rail or air services?
- Perhaps your customers could not get to you.
- Do you lease equipment or plant which could be damaged at a customer's property? Would production come to a halt?
- What happens if your staff cannot get to work?

Take action:

- Consider alternative suppliers and/or increasing storage capacity to increase your ability to operate without deliveries.
- Consider sharing suppliers with similar businesses in your area.
- Think about how you get your products to your customers or how your customers get to you. Consider how the routes could be disrupted by extreme weather.
- Make sure the drivers of vehicles transporting your products are experienced and are aware of the risks of driving in extreme weather (i.e. through floodwaters, on icy roads or during high winds).
- If your staff drive for business, make sure they are aware of procedures for driving in severe weather.
- Alternatively, consider using teleconferences for meetings when you cannot deliver your service in person.

Further information

• Seek advice from your suppliers and other similar businesses to identify alternative options.



Understanding and responding to climate change must become 'business as usual' for insurers and those they work with. Failure to take climate change into account will put companies at risk from future legal actions from their own shareholders, their investors and clients

(Source: Lloyds of London. 360 Risk Insight Project - "The debate on climate change")

Photo courtesy of Leicestershire County Council

Products, processes, stock and raw materials

Ask yourself:

- Have you thought about where you store your products, stock and raw materials?
- Do you know how to contact your employees out of hours to get assistance in moving or protecting stock?
- Do you have any processes or products that are temperature or climate sensitive?

Take action:

- Raise your stock off the floor to reduce its vulnerability to a flood. Do not store stock in the basement if possible.
- Think about expensive stock such as plant and vehicles and whether they can be relocated rapidly.
- Know where your drains are and keep them unblocked.
- Empty oil traps regularly to minimise pollution in the event of floods.

Further information

 Gov.uk has replaced the Business Link website as the source of Government services and information for businesses: https://www.gov.uk Business Link helpline tel: 0845 600 9006

Case Study: Nottingham Trent University (NTU)

Forward thinking has seen NTU introduce some of the greenest innovations seen in education. The £90m refurbishment of their Newton and Arkwright building has been designed with sustainability in mind, to reflect the University's long term commitment to environmental management. The scheme includes one of the largest sedum roofs in the country.

Depending on the depth of the substrate, among other things, green roofs can retain 70 - 80% of summer rainfall and 10 - 35% of winter rainfall. By retaining and slowing the release of water in heavy rainfall, green roofs help reduce peak flows and provide flood protection services. They have been shown to reduce ambient temperatures in the rooms below by increasing reflectivity, shielding building materials from the sun, and through evapo-transpirative cooling.

With an area of approx 2,500m² planted with 13 different varieties of sedum, NTU's green roof enhances biodiversity in the city centre, providing a haven for insects and other wildlife whilst absorbing carbon dioxide and mitigating the urban heat island effect.

NTU senior managers met officers from the UK Climate Impacts Programme to discuss risks posed by a changing climate and after due consideration decided that these were manageable through proposed and existing actions, the sedum roof being one of them.



The agricultural and horticultural rural business

Ask yourself:

In addition to the potential impacts that are common to all businesses, the agricultural and horticultural sector faces a different, and additional, set of issues. These businesses are directly affected by climate, and extreme weather events can have a significant impact. Ask yourself how your business may be affected both negatively and positively by:

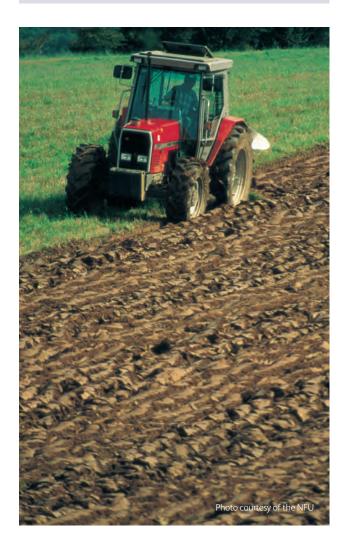
- Increased rain and increased flood risks.
- Reduction in quality and quantity of grass caused by lower rainfall and higher temperatures during summer (which may require feed for livestock to be supplemented).
- Reduced water availability (may affect yields of fruit, vegetables and cereals and ability to irrigate).
- Higher temperatures and increased carbon dioxide in the atmosphere (some crops may flourish).
- Changing climate conditions (could make it possible to grow alternative crops, including crops for energy).
- Heavy rainfall events could provide opportunities for increased water storage for use during water shortages.
- Higher summer temperatures and reduced cloud cover (could increase the risk of heatstroke and sunburn for livestock in open pasture).
- Higher average winter temperatures (could reduce problems for livestock in freezing weather).
- Higher winter temperatures and fewer days of freezing weather (affects vernalisation of winter cereals and formation of flower buds on some fruit trees).
- Higher temperatures (could increase the risk of pests and diseases in arable and horticultural crops).
- Higher summer temperatures and reduced cloud cover (could increase the demand for outdoor leisure and tourism, which could create opportunities for diversification).

Take action:

• Think about current trends and potential climate changes and seek further advice – see below.

Further information

- Farming Futures factsheets: http://www. farmingfutures.org.uk/resources/factsheets
- A full list of the Environment Agency's water conservation publications is available here: http://www.environment-agency.gov.uk/ research/library/publications/33993.aspx
- Examples of good practice can be found here: http://www.environment-agency.gov.uk/ business/sectors/32757.aspx



Emergency contacts and important documents

Ask yourself:

- Do you have a list of contacts that you can reach in an emergency? Do your employees have access to this list?
- Have you got a copy of your important documents saved in a separate location, for example insurance policies, accounts documents, product specifications, client details etc?
- Do you archive paper records off site?

Take action:

- Make sure you have out-of-hours details of your staff so they can be contacted in an emergency.
- Keep your important documents in a safe place. This will help to make an insurance claim move more quickly.

Further information

- Is your business at risk of flooding? Find out now, call the Environment Agency Floodline on 0845 988 1188 or visit www.environment-agency.gov. uk/113798.aspx
- The Environment Agency publication "Would your business stay afloat? A guide to preparing your business for flooding" has a simple template to use to create a flood plan for your company: http://www.environment-agency.gov.uk/business/ topics/flooding/32362.aspx

Case Study: Golden Beach Holiday Park, Lincolnshire

Tidal inundation on the Lincolnshire coast is being taken seriously by Golden Beach Holiday Park, who have worked with the Environment Agency and District Council to put in place an evacuation plan for their site. This will help ensure the safety of holiday makers should tidal defences be overwhelmed or fail during a tidal surge. Together with a site plan, the site management have ensured that their 100 static caravans have individual evacuation plans, placed in a prominent position inside the caravans for users to clearly see.

The site is registered to receive flood warnings from the Environment Agency, via Floodline Warnings Direct, so that the evacuation plan can be triggered in a timely manner.

Caravan park owners are encouraged to work with District Councils, the Environment Agency and County Emergency Planning teams. Together simple and efficient ways to reduce the impact of flooding to existing caravan sites can be found. Increased awareness and use of site emergency and evacuation plans can make the difference during an incident in protecting the thousands of visitors to the Lincolnshire coast.



Cut carbon and reduce costs

Every company, no matter what its size, can save money on its energy bills by following some simple steps. Cutting energy use and saving carbon now will help to reduce further climate change in the future.

You don't have to invest lots of money or make big changes to your business to save on your energy bills. The right combination of small changes, many costing nothing, can reduce your energy bill by \pounds 1,000s.

Gov.uk has replaced the Business Link website as the source of Government services and information for businesses: https://www.gov.uk Business Link helpline tel: 0845 600 9006.

Here are some simple, no cost, energy saving tips for small businesses:

Case Study: Maxim Logisitics Group Ltd, Northamptonshire

Following an on-site carbon survey by the Carbon Trust, Maxim Logistics Group Ltd used an Energy Efficient Loan to install new energy saving lighting for its main warehouse.

The changes have improved working conditions by making the warehouse brighter, whilst cutting the company's annual energy bill by almost 41%. The company's monthly energy consumption has been reduced from 44,500kWh to 28,000kWh.

Issue	What can you do to save money and cut carbon at no cost?
Heating	Don't turn up the heating unless you really need to. Try to keep your thermostat at 19°C as your heating costs could increase by 8 % each time you turn the temperature up by just one degree.
Heating	Set controls. Programme your heating system controllers to allow for varying building occupancy throughout the week.
Lighting	Switch lights off in empty rooms. You could cut your lighting costs by as much as 15 % just by making sure you turn off lights in areas that aren't being used.
Ventilation	As simple as it sounds, making the most of natural ventilation through correct use of doors, windows and vents is a cost- effective way of achieving big savings on your ventilation.
Office equipment	Switch computers off. A single computer and monitor left on 24 hours a day could cost over £50 a year. Switching it off out of hours and enabling standby features could reduce this to £15 a year.
Refrigeration	Ensure your system is set at the right temperature. Even if it's 1°C lower than needed, your costs could rise by 2-4%.
Motors and drives	Switch off motors and other power equipment when they aren't being used.
Boilers	Service boilers every year - a regularly serviced boiler can save up to 10% on heating costs.
Compressed air	Find and fix leaks - a 3mm hole in your compressed air system could cost more than £700 per year in wasted energy.
Good maintenance	Equipment which is poorly maintained will not operate efficiently and will need more energy.
Knowledge	Make sure everyone knows that saving energy will help the company. Ask your colleagues for their ideas on how you could all save energy.

The Carbon Trust implementation services and Siemens Financial Services have combined forces, and together they are offering leases, loans and other financing options to all types of organisations seeking to reduce their energy use: **www.carbontrust.com**

Opportunities for small businesses

The following table provides some examples of opportunities that small and medium businesses could consider, arising from a changing climate:

Markets	Finance	Logistics	Premises	People	Process
New products or modifications to existing products to respond to a changing market	Good risk management will appeal to financiers and insurers and other stakeholders, leading to reduced insurance premiums	Competitive advantage for companies with redundancy or flexibility built into delivery systems and supply chains or those undertaking business continuity planning	Maintenance of thermal comfort in winter months is less of a challenge	Greater comfort and lower fuel bills in winter	Agriculture: Longer growing season and new species and varieties of plants can be grown
Advantages for early movers in response to changed markets and lifestyles	Potential risks reduced and liabilities diminished through pro-active risk assessment and implementation	Supplying local markets creates an opportunity for a marketing approach based on regional distinctiveness or reduced product miles	Opportunities for high thermal mass building solutions, which can reduce air-conditioning requirements	Reputational opportunities of responding effectively as a good employer increases recruitment and retention of high quality staff	Manufacturing: Developing expertise in managing industrial processes and technologies in response to climate change
Increased passing trade in some sectors during long hot summers	Clients and customers attracted to businesses that can show they are resilient to climate change		Opportunities for those in built environment industries to develop expertise and reputation in climate- related building services	Opportunity to improve work/life balance by responding to climate change risks with flexible working hours and increased home working	Finance: New insurance products and services that spread the risk of climate change and incorporate underwriting that takes account of climate change
Increased demand for some products and services			Opportunity to exploit external spaces to accommodate outdoor living	Opportunities for recruitment, housing and service provision in areas away from urban centres, which could become more attractive	Construction: Fewer delays on site through frosts
More extreme events mean opportunities (i.e. maintenance services, repair, al- fresco eating facilities)				Generally more outdoor activity creates opportunities in some industries	

(Source: UKCIP, A Changing Climate for Business: business planning for the impacts of climate change, revised edition January 2009.)

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Useful tools and further information

Who	How Can Theγ Help?	Contact Details
Association of British Insurers (ABI)	ABI provide advice on insurance issues and have a range of insurance publications for SMEs	http://www.abi.org.uk Tel: 020 7600 3333
British Chambers of Commerce (BCC)	Your Chamber of Commerce can provide advice, support and guidance on climate change adaptation issues. Find your local Chamber of Commerce on the website provided	http://www.britishchambers.org.uk Tel: 020 7654 5800
British Insurance Brokers' Association (BIBA)	Contact your own insurance broker for advice, alternatively contact BIBA who can help you find a member broker	http://www.biba.org.uk Tel: 0870 950 1790
Business in the Community (BitC)	Business in the Community is a business-led charity providing practical support to promote responsible business practice. Its members work together to transform communities by tackling issues where business can make a real difference. BitC convenes The Prince's Mayday Network as part of its Environment programme.	http://www.bitc.org.uk/ Tel: 020 7566 8650
Cabinet Office	A toolkit to assist you to develop a business continuity plan is provided at this web address	http://www.direct.gov.uk/prod_consum_ dg/groups/dg_digitalassets/@dg/@en/ documents/digitalasset/dg_176447.pdf
Carbon Trust	Provides specialist support to business and the public sector to help cut carbon emissions, save energy and commercialise low carbon technologies	http://www.carbontrust.com Tel: 020 7170 7000
Climate East Midlands	The climate change partnership coordinates action on the causes and consequences of climate change, and is part of Climate UK.	http://www.climate-em.org.uk Tel: 07854 284588
Climate Ready	Climate Ready is the Environment Agency's support service to help businesses and other organisations prepare for climate change. Information specifically for business and services can be found here: http://www.environment- agency.gov.uk/research/policy/132329.aspx	http://www.environment-agency.gov.uk/ research/137557.aspx
Climate UK	Climate UK is a not-for-profit Community Interest Company working with Climate Change Partnerships across England, Wales, Scotland and Northern Ireland to promote action on climate change. They aim to investigate, inform and advise on risks and opportunities presented by climate change, and coordinate and support integrated, sustainable and effective responses. Through their network of trusted and independent Climate Change Partnerships, they uniquely offer both local and national coverage by bringing together local knowledge and technical expertise from a range of sectors.	http://www.climateuk.net
Confederation of British Industry (CBI)	The CBI helps create and sustain conditions in which business in the UK can compete and prosper. CBI provides advice on how to reduce your carbon footprint, case studies and information on climate change events	http://www.cbi.org.uk/business-issues/ energy-and-climate-change Tel: 0207 379 7400
Construction Industry Research and Information Association (CIRIA)	CIRIA provide information on the repair and restoration of buildings following floods	http://www.ciria.org/flooding
Department for Environment Food and Rural Affairs (Defra)	Defra is the lead central government department on climate change adaptation. Defra led on the UK's first Climate Change Risk Assessment published in January 2012, and is leading on the development of the National Adaptation Programme, due to be published in 2013.	http://www.defra.gov.uk/environment/ climate Tel: 08459 335577
Energy Saving Trust	The Energy Saving Trust Foundation gives impartial advice to communities and households on how to reduce carbon emissions, how to use water more sustainably, and how to save money on energy bills.	http://www.energysavingtrust.org.uk
Environment Agency (EA)	The EA is the lead Government agency in England and Wales on flooding and broader environmental management and is the Government's delivery body in England for climate change adaptation. See Climate Ready, the EA's support service for businesses and other organisations: http://www.environment-agency.gov.uk/research/137557.aspx	http://www.environment-agency.gov.uk Tel: 03708 506 506

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Useful tools and further information

Who	How Can Theγ Helρ?	Contact Details
Farming Futures	Farming Futures provides farmers and land managers with inspiration and information to ensure their business is profitable and sustainable in a changing economic and environmental climate. Farming Futures is supported, amongst others, by Defra and the National Farmers Union (NFU). It provides a series of fact sheets and case studies on its website, prepared for each farming sector: http://www.farmingfutures.org.uk/resources/ factsheets	http://www.farmingfutures.org.uk Tel: 01223 342 313
Federation of Small Businesses (FSB)	The FSB is the UK's largest campaigning pressure group promoting and protecting the interests of the self-employed and owners of small firms.	http://www.fsb.org.uk/ Tel: 0808 2020 888
Gov.uk	Gov.uk has replaced the Business Link website as the source of Government services and information for businesses. At the time of going to print, the Business Link helpline is available on 0845 600 9006 .	https://www.gov.uk
Institution of Occupational Safety and Health (IOSH)	As the biggest health and safety membership organisation in the world, IOSH is committed to creating a world of work which is safe, healthy and sustainable. IOSH provides a range of free guidance and online tools aimed at both the operational and strategic level.	http://www.iosh.co.uk Tel: 0116 257 3199 or emαil: techinfo@iosh.co.uk
Kitemark	Tested and approved flood protection products	http://www.kitemark.com Tel: 0845 0809 000
Met Office	The UK's national weather service, with forecasts available from its website. Forecasts are for anything from the next few hours to the coming season	http://www.metoffice.gov.uk Tel: 01392 885680
National Farmers Union (NFU)	The NFU champions British farming and provides professional representation and services to its members.	http://www.nfuonline.com Tel: 024 76858500
National Flood Forum	A charity providing support and advice to communities and individuals that have been flooded or are at risk of flooding. The Blue Pages is a directory of builders, suppliers and other service providers who install or provide information on flood protection and resilience products: http://www.bluepages.org.uk	http://www.nationalfloodforum. org.uk Tel: 01299 403055
Natural England	An independent public body that works to protect and improve England's natural environment	http://www.naturalengland.org.uk Tel: 0845 6003078
The Prince's Mayday Network	The Mayday Network is a collaboration of businesses taking action on climate change and resource depletion. Mayday businesses work together and with partners to seek out and promote the best solutions to the major environmental challenges we face. The Business Resilience Healthcheck tool identifies areas where business operations could be affected by severe weather and climate change, and produces a bespoke report outlining the actions you can take to make your business more resilient: http://www.businessresiliencehealthcheck.co.uk	http://www.maydaynetwork.com
UK Climate Change Risk Assessment (UK CCRA)	The Government published the UK Climate Change Risk Assessment in January 2012, the first assessment of its kind for the UK, and the first in a 5 year cycle. Outputs include a summary report of the key findings, and a summary report for the Business, Industry and Services sector.	http://www.defra.gov.uk/ environment/climate/government/ risk-assessment
UK Climate Impacts Programme (UKCIP)	UKCIP helps organisations assess how they might be affected by climate change, so they can prepare for its impacts. Tools that UKCIP have prepared include BACLIAT and CLARA for businesses and business advisors respectively.	http://www.ukcip.org.uk Tel: 01865 285717
	BACLIAT is a good starting point for exploring the implications of climate change for your particular business or sector. It comprises a simple checklist for assessing the potential impacts of climate change. http://www.ukcip.org.uk/bacliat	
	CLARA is aimed primarily at helping business advisors to support SMEs in understanding and preparing for the impacts of climate change. http://www.ukcip.org.uk/clara	
UK Climate Projections 2009 (UKCP09)	Explore the climate projections online. The key findings for the East Midlands are here: http://ukclimateprojections.defra.gov.uk/21711	http://ukclimateprojections.defra. gov.uk

Notes and useful information



°Climate east midlands

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