

# Keeping the flood waters at bay

Dr Paul Beckett, director of environmental consultancy, Phlorum, looks at government planning policy on flooding and how companies can protect themselves against it.

**B**OTH BUSINESSES and homeowners in England and Wales were unsuspecting and under-prepared for the weather of summer 2007. Not only did the July rainfall figures break records, but the May to July period was also the wettest since records began.

According to Met Office statistics, the UK's average rainfall in June alone reached 134.5mm compared to the previous high of 121.2mm in June 1980 and for the three month period from May onwards a staggering 387.6mm of rain fell across the country, which was more than double the average for 1971-2000.

At one point, a sixth of the country's annual rainfall fell in just twelve hours and unsurprisingly the phenomenal weather resulted in rivers across the country bursting their banks, with towns flooding and buildings collapsing.

The Association of British Insurers (ABI) estimates that some 27,500 homes and 7,000 businesses were affected by the rainfall. There were 60,000 flood insurance claims in July and August alone and with the cost of the devastation to insurers still rising it is expected the final figure could eventually reach up to £3 billion.

A further £3 billion cost is estimated in lost output and higher prices and the direct

loss of production from those unable to work in flooded premises is approximately £500 million.

While the rains have highlighted the increasing risk to businesses, the problem of flooding has by no means gone away.

Defra's National Appraisal of Assets at Risk Report estimates a total of 1.8million homes and 140,000 commercial properties are at risk of flooding in the UK. The capital value of assets at risk has been estimated to be around £250 billion. Worryingly however, many companies in the UK are unaware of the extent to which flood risk could affect them. Many businesses and insurers are,







to some extent, guilty of this by taking the view that if they haven't flooded before, they won't be in the future. This is a dangerous perception as the climate and urban environment is changing so future effects are very difficult to predict. Therefore in order to protect against flood risks businesses should be taking steps to prepare themselves.

## Business considerations

Floods often happen suddenly and without warning, so at-risk businesses need to be prepared and, if appropriate to the risk, have a well thought out flood plan already in place.

By law, areas of significant flood risk need to have prepared flood risk maps and flood risk management plans by December 2013

and 2015 respectively. The first step is to find out if your business is at risk of flooding or not. You can find out the risk of flooding to your business by checking its location on the Environment Agency's (EA) online Flood Map ([www.environmentagency.gov.uk/flood](http://www.environmentagency.gov.uk/flood)).

A good flood plan should cover every area of your business including staff training, insurance,

## What is PPS 25?

The Planning Policy Statement 25 (PPS 25) published in December 2006 sets out the guidance from the government on planning development and flood risk. It aims to have flood risk considered at all stages of the planning and development process and to ensure that no inappropriate development occurs in areas at risk of flooding. It furthermore aims to direct development away from areas at highest risk. It states:

- Areas needed for flood management are to be safeguarded from development
- Development is only allowed in areas of flood risk when there is no other reasonable lower flood risk site available and the benefits of the development outweigh the risks from flooding
- The Environment Agency is a statutory consultee on all new development
- If allowed, development must be made safe and be appropriately resilient and resistant, including any necessary access or escape routes. Furthermore, this must be done without increased flood risk elsewhere and if possible it should reduce flood risk overall
- New development offers the opportunity to reduce the causes and impacts of flooding. This can be done through sustainable drainage systems (SUDs), which should be incorporated to reduce flood risks
- The development process must incorporate a flood risk assessment (FRA) where deemed necessary by local planning authorities, this must be site specific and satisfy that the development is safe and not increasing flood risk elsewhere
- The planning process takes a sequential approach with the most vulnerable development directed to the areas of lowest flood risk.





evacuation and protecting property. One of the most important issues to consider is insurance; the insurance industry and wider business community need to identify what assets are at risk of flooding and to what extent. Only then can they effectively work together to manage the risk.

This process involves a detailed examination of the immediate risk to specific sites, but can also include the mapping and modelling of flood risk to the surrounding area. This analysis should include risks to essential infrastructure and transport routes as well as the risk faced by a company's distributors or suppliers.

Considering new development in and around the floodplain, businesses should not only focus on the level of flood risk to the site itself but to the surrounding infrastructure as well. A new development reduces natural vegetation which tends to soak up water, thereby potentially increasing levels of flood risk, not only to that site, but also to other properties in the surrounding area.

In order to address the growing issue of flooding in the UK, a number of initiatives have been set up by the government in the last few years.

The most important in relation to new development on the floodplain, is Planning Policy Statement 25 (PPS 25). This explains how flood risk should be considered at all stages of the planning and development process and sets out ways to reduce the risk of flooding to people and property.

PPS 25 has resulted in the development of new techniques to address flooding as well as new types of flood risk information; some of which could be useful to developers and insurers.

## Ensure proper planning

In order to ensure projects and developments are safe and feasible, both Regional and Local Planning Authorities are responsible for assessing flood risk in their preparation of the regional and local development plans.

Local Planning Authorities (LPAs) also have to ensure developers include Flood Risk Assessments (FRAs) in their own proposals due to changes to the General Development Procedure Order which means that LPAs have to consult the EA on any planned developments that are at risk from flooding.

This means that if there is no FRA incorporated in the proposed plans then it is likely the plans will be opposed by the Agency and refused by the LPA.

Over the past three years the Association of British Insurers has also laid down guidelines to minimise flood risk, which developers flout at the peril of rendering their buildings uninsurable.

The implementation of these new rules is likely to be the result of previous hefty payouts from insurers to owners of property in risky zones and the need to cut down on the cost of flooding.

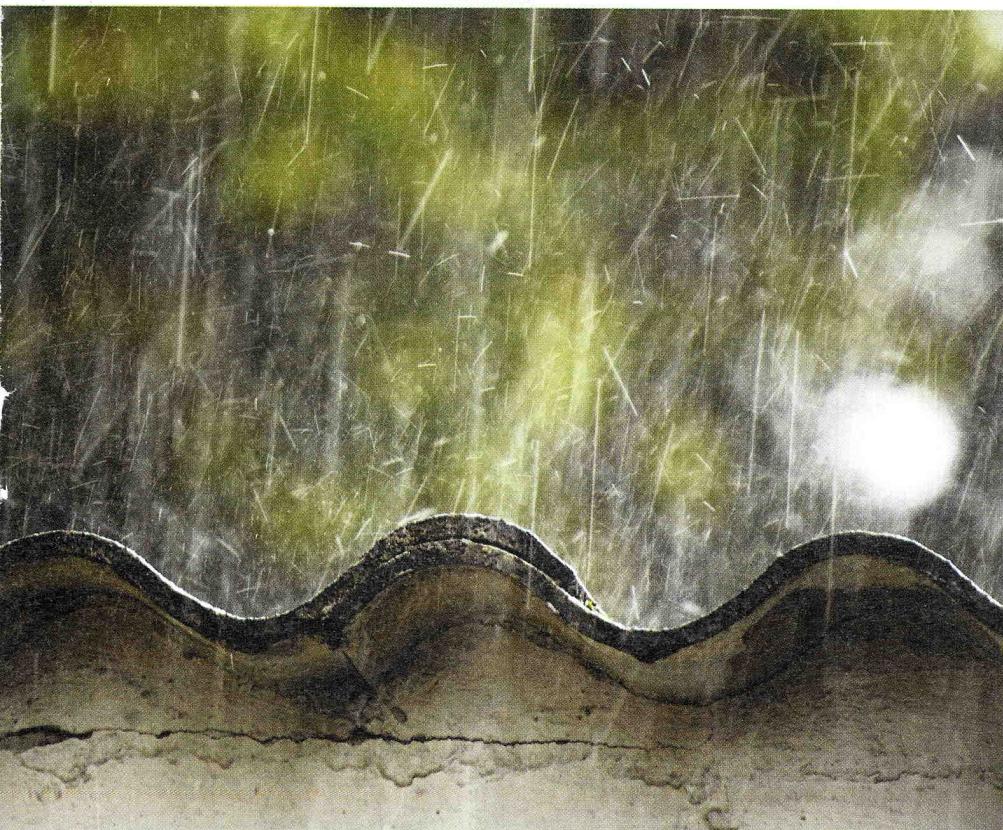
For businesses who wish to develop within flood risk zones it is essential that they follow the proper procedures and, if need be, take expert advice in order to satisfy the LPA and the EA as well as their insurers.

Failure to comply with the rules and full requirements could result in higher fees and wasted time as development plans could require reassessment or even abandonment.

If development work is carried out without permission, the developers could be forced to remove any structures or foundations and even face huge fines; ultimately they will be at risk of flooding with no insurance.

If your business is particularly at risk from flooding the EA suggests developing a flood plan. Visit [www.environment-agency.gov.uk/subjects/flood](http://www.environment-agency.gov.uk/subjects/flood) for more information.

*Phlorum provides flood risk assessments for housing developers and other private and public sector clients. They also offer advice and guidance on a number of environmental issues from knotweed to air quality. See [www.phlorum.com](http://www.phlorum.com)*





# Embarking on an **EPIC** green adventure

Can green office buildings offer SMEs a competitive edge over their rivals? Warwickshire County Council puts the case for Eliot Park Innovation Centre in Nuneaton and says it offers businesses the right environment for companies to demonstrate their green credentials.



EPIC generates enough energy to power up to 700 PCs, boil 42 kettles or light around 10,000 energy-saving bulbs.

FEVER proof was needed that green can be good for business, it can be found at a state-of-the-art facility set in Warwickshire's industrial heartland.

Eliot Park Innovation Centre - or EPIC as it has become known - is based on the outskirts of Nuneaton, an area best known for its mining and motor manufacturing industry.

Years of decline for those traditional industries meant the area needed to reinvent itself to remain commercially competitive.

Warwickshire County Council, along with its partners, Coventry University Enterprises (CUE) and regional development agency, Advantage West Midlands (AWM), recognised that need and joined forces to make EPIC the vehicle by which it could transform the area.

Sara-Louise Board from Warwickshire County Council says it was important that any new facility helped create long-term employment and jobs of the future - those outside traditional manufacturing.

"From the perspective of regional regeneration and investment, it was crucial that any development encouraged sustainable employment so we worked closely with Coventry University Enterprises, who would eventually manage the building, to identify the best opportunity," explains Ms Board.

"We agreed the way forward would be to provide an innovation centre - an 'incubation' environment in which small businesses in the innovative and knowledge-based sectors could thrive thanks to the extra support they'd receive."

Sharon Simkiss, from CUE which manages EPIC, explains why an innovation centre was so suited to the area and its special requirements.

"Innovation centres provide intensive, hands-on support and services to assist specifically in the creation and early-stage growth of businesses. Typically, the survival rate of businesses in an incubator environment after three years is 80% to 90% compared to just 50% in other environments," she says.

## Good for the environment

ENVIRONMENTAL RESPONSIBILITY was always a priority for the EPIC team, not just in terms of the long-term performance of the building, but also during its construction phase.