

# Prepare for deep waters UPDATE

Our previous Flood Bulletin issued in February 2011 focused on the repercussions of the Government decision to reduce spending on flood defences and the UK insurance market's response to this which might lead to either complete removal or selective availability of flood cover probably at higher premium rates during 2013, all at a time when there is expected to be an increased frequency of severe flood events.

Flood damage can be devastating and recovery can be both time consuming and very costly and can have a significantly negative effect on tenant's businesses. Here we follow up on our earlier article with a look at what real estate investors and their property managers can do to reduce their portfolio's exposure to flood and mitigate the impact which a flood might have on properties.

In this article we mainly focus on property damage and the responsibilities of real estate investors and their appointed managers and our advice is therefore predominately applicable in respect of multi-let buildings and estates where they will retain management responsibilities. As with all risk and safety management issues in such properties however the landlord and the managers will generally have an obligation to co-ordinate the property wide activities and to ensure that there is appropriate cooperation between all occupiers.

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## There are several elements to take into account when considering a flood risk management programme:

- 1 – risk avoidance, holding property investments which are generally not exposed to the risk of flood**
  - 2 – resistance, appropriate defences to protect properties against flood damage**
  - 3 – resilience, properties being designed so that they are less susceptible to, and can more readily recover from a flood**
  - 4 – general issues, business continuity planning and health and safety action to be taken during a flood.**
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## Risk Avoidance

Specialist flood exposure reports should be part of all pre-acquisition

due diligence processes. Very careful consideration should be given to high risk acquisition opportunities, as well as new developments within flood areas, and alternative no or low risk real estate investments selected elsewhere. Valuers should now be factoring exposure to flood damage into the property valuation process and this may begin to have more of a negative impact on values going forward particularly if the number of serious flood events does increase and/or flood insurance cover does cease to be available.

We feel it is critical that those making the final decisions on acquisitions for real estate investors are aware of these issues.

In addition to being part of the acquisition process, flood risk assessments should also be carried out in respect of existing property holdings and, since the geographic pattern of flood events is changing, these should be reviewed from time to time.



Flood falls into 3 main distinct types and background causes:

- fluvial floods, damage by rivers overflowing
- tidal floods and high tides
- surface water floods, the inadequacy of surface drainage to handle volumes of storm water.

There are others and many flood events are in fact a combination of two or more such causes.

As we said in our February article, although in recent years surface flooding has been more frequent, devastating and costly, details as regards the exposure to this risk and the likelihood of such a flood occurring are very much less comprehensive and accurate risk assessments will be much more difficult to prepare for the foreseeable future.

Flood risk assessments should, if possible include in the executive summary a basic risk measurement indicator; 'Frequency' contrasted against 'Severity'. How likely is it that the property will suffer a flood on a 1 in, perhaps, 100 year basis and should it occur, how severe is it likely to be in terms of both depth and duration? With both aspects possibly perhaps being measured on a scale of 1 to 10 which will allow easy measurement, comparison and prioritisation.

## Flood Resistance

Where properties have been identified as being at risk, defences against flood should be considered.

As with any effective risk management programme, the importance of good standards of day to day management cannot be overstated and as is generally the case this should include regular inspections. As regards the flood risk this should involve checking walls for cracks and gaps and routine maintenance of gutters, pipes and drains. Management staff should also

be fully aware of the location of all mains switchgear and stopcocks.

Buildings might include defence features such as appropriately designed walls and ground floors at appropriate levels and it might also be possible to raise the levels of door thresholds and window sills.

Temporary de-mountable defences can also be purchased for installation when a flood is imminent. These might include sandbags and other modern more sophisticated flood protection products which are now on the market such as temporary barriers and covers for airbricks. The National Flood Forum Blue Pages gives details of such products.

Non-return valves should be fitted to toilets, drains and sewage pipes to prevent waste backflow into the building.

Whilst a lot can be done to limit the amount of water entering a building care should be taken not to allow flood water to rise too high outside a building since there is a risk of the pressure thereby created causing more serious structural damage. Specialist professional advice should be sought, but a maximum depth of 1m is often mentioned in this regard.

On estates, design features could also include permeable car parking and paving surfaces and landscape planning should also be reviewed.

In respect of estates with open ground and particularly those crossed or bordered by a river, stream or other watercourse, consideration could be given to the provision of flood overflowing areas to divert and hold flood water and prevent property damage. Again, specialist advice should be sought and care must be taken as regards the subsequent post-flood drainage of these areas so as not to discharge all such water at once, possibly thereby adding to flood damage further downstream and potentially incurring third party legal liability claims based on the 'Rowlands v Fletcher' principle.

In co-operation with neighbours and local authorities Sustainable Urban Drainage Systems can be devised which can incorporate features such as swales (part-time ditches) or new ponds or wetlands.

External fuel storage tanks will usually be bunded to prevent contamination arising from leaks or spillage and this bunding can protect those tanks in the event of a flood. However, it should be checked that they are adequately secured to prevent movement and pollution in flood circumstances.

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### When a flood is immediately imminent, property managers should:

- register with the Environment Agency's Floodline Warnings Direct Service 0845 988 1188
- turn off all services (although security systems should still be operational)
- close off flow valves on gas and oil tanks
- install any temporary flood defence measures
- if possible remove internal doors at low level and remove to higher floors
- ensure all occupiers move to safety
- take emergency grab bag (see over).

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### Flood Resilience

In the event that the building defences are overwhelmed, the extent of the damage and the resulting repair costs can be limited and the period until the property can once again be reoccupied can be significantly reduced by considering the flood resilience of buildings and making them less susceptible to damage. This can be taken into consideration when looking at new builds, refurbishments and even perhaps post flood or other previous large insurance claim repairs.

Issues to bear in mind may include:

- sacrificial lower levels in buildings. Basements and perhaps ground floors which when flooded, will not only suffer little damage, but their loss will have a limited effect on the occupation of the property, such as use only as garages with no plant or equipment located there
- locating all gas and electric meters, boilers, plant and equipment including electrical and telecommunications wiring and sockets well above the highest potential flood level
- use of more resilient materials generally such as stone, concrete, metal, ceramic tiles or plastic in terms of features such as flooring, fixtures and fittings etc.
- avoidance of timber (particularly MDF) joinery and porous plaster or plaster board, although if plaster board is used fitting it horizontally rather than vertically may minimise the subsequent repair period and cost of replacement
- use of water resistant paint.

### General Management Issues

Additional aspects to be considered include :

#### Business Continuity / Disaster Recovery / Site Emergency Plans

Such plans should already exist and a check should be made to ensure they include a flood focus:

- In addition to the usual local and emergency authority, tenants' and neighbours' contact details additional flood related contact details, such as water companies and environment agency, should be added
- Such plans will already refer to assembly points and possibly safe

havens for personnel in certain circumstances and consideration should be given to including reference to an elevated refuge in the event of a flood, assuming that a safe evacuation is not possible

- Managers should have a general 'emergency grab bag' which will probably already contain items such as critical business documents, important contact details (including emergency services, local authority, tenants and insurer helpline), torch and radio (preferably both wind-up), rubber gloves, bottled water, a first aid kit and some cash. To cater for a flood, other items should be given consideration to include wellington boots and waterproof clothing.

### Health and Safety During a Flood

There will generally be a need to cooperate with the emergency services and follow their instructions and obviously the safety of people always takes priority over property protection.

Legal liability issues and third party claims can arise during floods and employees and other personnel should never be exposed to the risk of injury. Health and safety always needs to be managed properly and the management of properties while flooded is no exception and this should be the subject of a risk assessment process, which should be undertaken by qualified and experienced specialist advisers.

Personnel need to be aware of the dangers that exist in a flood, including those which arise with even quite low water levels, such as:

- the fact that fast moving flood waters only six inches deep can knock a person over
- two feet of water can float a car
- flooding can remove manhole covers creating hidden exposure to the risk of drowning

- personnel should not touch electrical items when standing in flood water until they are certain they have been disconnected by appropriately qualified professionals
- contact with flood water which may be contaminated should be avoided and hands should be washed as soon as possible after any such contact.

### After the flood

The immediate priority will be drying and cleaning for which insurers will probably approve the use of professional contractors.

Given the likelihood of contamination, waterproof clothing, rubber gloves, wellingtons and face masks should be worn. Skips, shovels, brooms and cleaning and disinfecting products will be needed. (COSHH assessments will be necessary).

Pumps and dehumidifiers will be needed as might generators if it is not safe to use the electricity supply. If a qualified person has confirmed it is safe to use any gas or oil fired heating do so and if drying naturally keep doors and windows open as much as possible without leaving them unattended and therefore susceptible to intruders.

The damage should be reported to your insurers as soon as possible. You will need to know whether a loss adjuster will be visiting, and if so when.

Take photographs if possible, remember not to dispose of any equipment which will be expensive to replace until the loss adjuster has seen them unless told it is alright to do so by them or the insurers and otherwise maintain full records.

Take expert advice about factoring defence and resilience measures such as those mentioned above into any specification for repairs.

### Sources of further information

#### Our February 2011 Flood Bulletin

[www.jltgroup.com/content/UK/risk\\_and\\_insurance/brochures/263204\\_RE\\_Flood\\_Bulletin.pdf](http://www.jltgroup.com/content/UK/risk_and_insurance/brochures/263204_RE_Flood_Bulletin.pdf)

#### EA website

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

#### National Flood Forum Blue Pages

[www.floodforum.org.uk](http://www.floodforum.org.uk)

#### Department for Environment, Food and Rural Affairs

[www.defra.gov.uk/environment/flooding](http://www.defra.gov.uk/environment/flooding)

#### Department for Communities and Local Government

[www.communities.gov.uk](http://www.communities.gov.uk)



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