

West Midlands State of the Environment

Flood and coastal risk management

Flooding happens when excessive rain or melting snow overwhelms the drainage capacity of the land causing river levels to rise and breach their banks. Flooding from rivers and coastal waters is a natural process that has played an important role in shaping the landscape over millennia. However, human development has been extensive with many homes and infrastructure sites, such as roads and power substations, being built on natural flood plains.

Regardless of the cause of river and tidal flooding, the impact of flooding on people and property from flooding can be devastating, with lasting effects on both property and human health. In July 2007 although Gloucestershire and South Yorkshire were worst hit, around 1,000 homes and businesses were also flooded in the West Midlands.

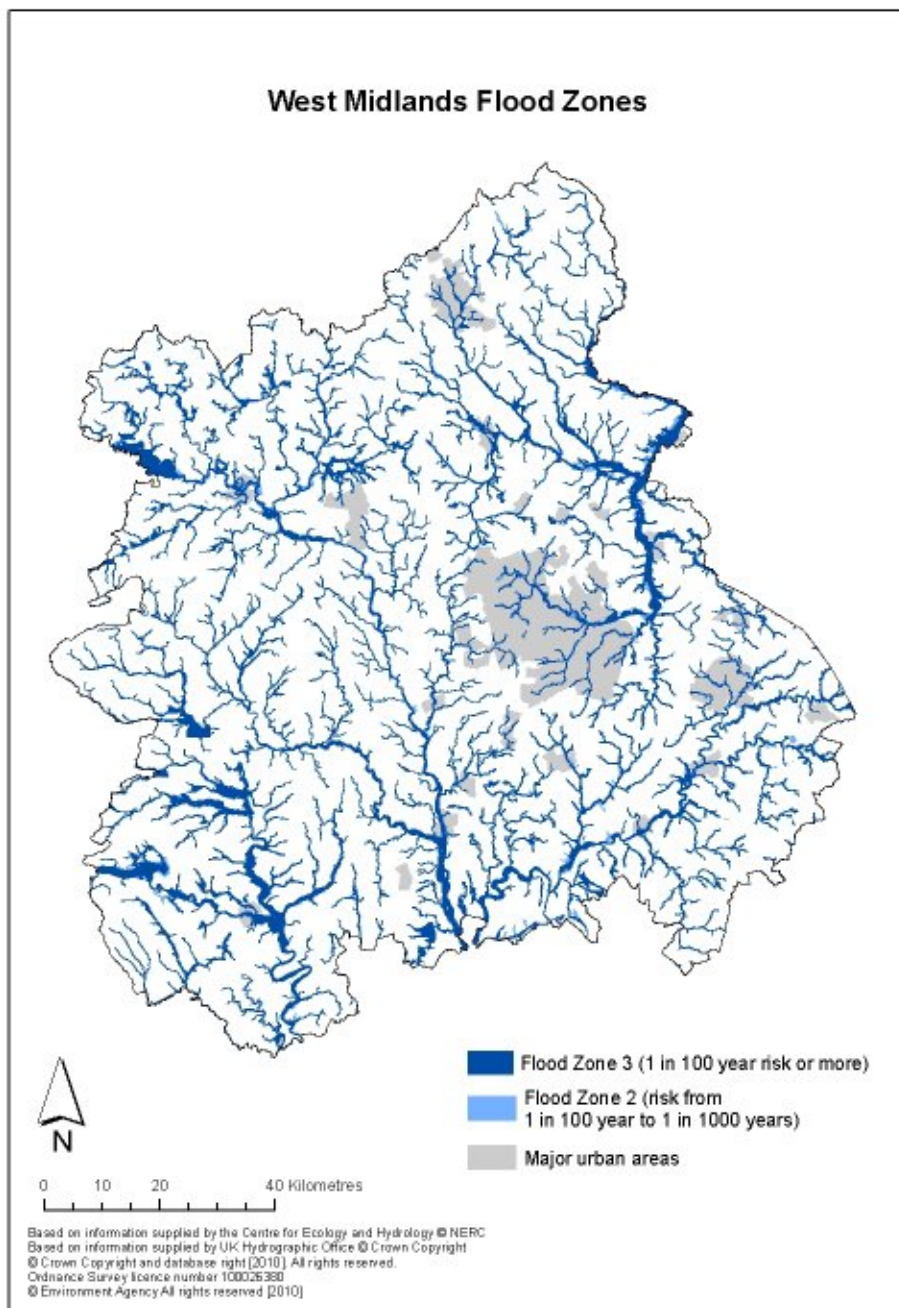
Minimising the impact of flooding will become ever more challenging due to the pressures for more new homes and infrastructure. Climate change may also increase the frequency of extreme weather events leading to more flooding and coastal erosion

At a glance

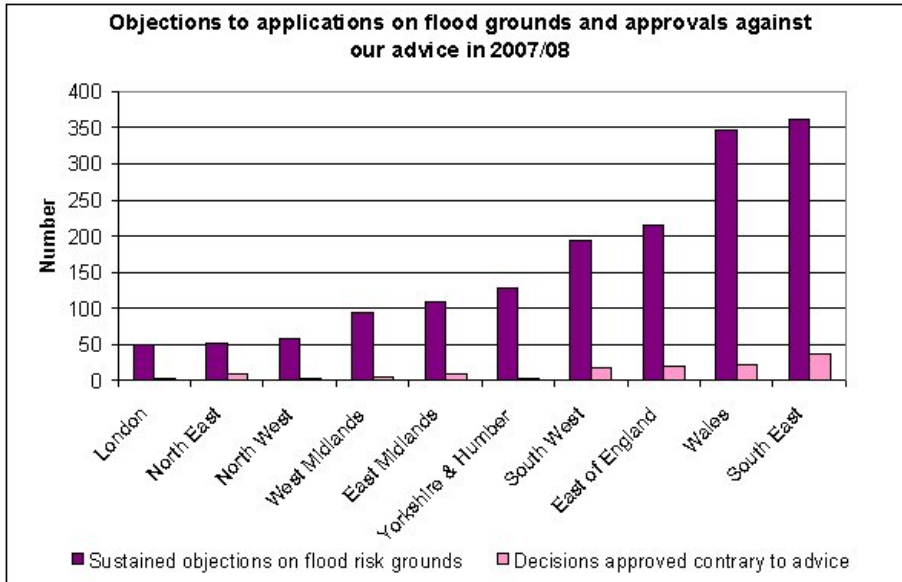
- Around 6.5 per cent of land in the West Midlands has a 1 per cent chance of flooding in any one year.
- According to the 2008 National Flood Risk Assessment, around 118,000 properties in the region are at some level of risk from flooding. This is around 4 per cent of the region's properties.
- 80,000 of all the properties at risk are residential properties.
- Around 21,000 residential and commercial properties are at 'significant' risk from flooding which is the highest category. This means they have a greater than 1 in 75 year chance of flooding.
- According to the UK Climate Projections 2009 (UKCP09) average winter precipitation may increase by 13% in the West Midlands by the 2050s due to climate change. This is the central estimate for a medium emissions scenario.
- In 2007/08 we raised and sustained 94 objections to planning applications on the grounds of flood risk. Although the majority of applications were rejected, five were eventually approved against our advice.
- We have flood risk management permissive powers on 2,900 km of main rivers in the West Midlands.

Data and trends

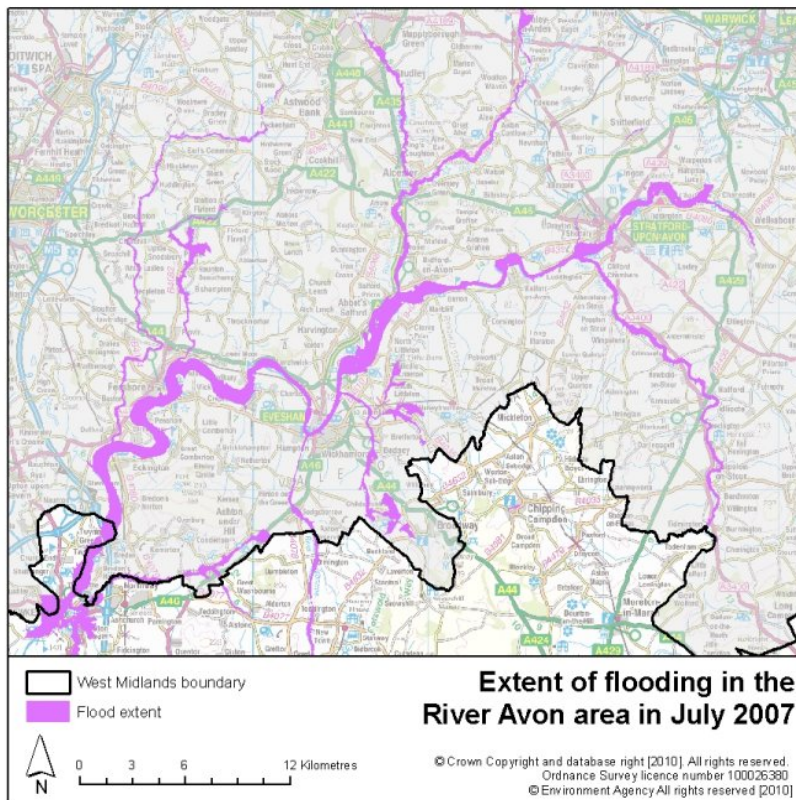
The following map shows the flood zones in the West Midlands. Flood zone 3 is where there is a 1 in 100 year risk or greater of flooding and flood zone 2 is where the risk is between 1 in 100 years to 1 in 1000 years. The National Flood Risk Assessment (NaFRA) dataset is calculated using these zones but also takes into account the effect of flood defences.



As a statutory consultee, we advise on planning applications where flood risk may be a factor. Often conditions can be included in developments which mitigate the risk satisfactorily. However, where this isn't possible objections are sustained. The number of applications which are eventually approved against our advice is just a small percentage of the total.



The following map shows the extent of flooding in part of the West Midlands during the summer 2007 floods. Gloucestershire and South Yorkshire were worst hit, but many homes in the West Midlands were also flooded.



customer service line

08708 506 506

www.environment-agency.gov.uk

incident hotline

0800 80 70 60

floodline

0845 988 1188

Our role

Raising the awareness of flooding for those at risk, managing flood risk for people and homes and responding to flood events are some of our key roles. In the coming years we will ensure that:

- All those responsible for watercourses manage their land and watercourses to reduce flood risk and improve ecological value.
- Inappropriate development is directed away from areas at high risk of flooding.
- We will protect more people, property and the natural environment from significant flood risk.
- We are valued for providing a professional and effective incident management service; with people taking ownership of their flood risk, preparing for flooding and knowing what they need to do if flooding occurs.
- We will have robust and sustainable flood defences that are economically and effectively managed.
- Riparian owners on urban main rivers understand and fulfil their responsibilities.
- The policies in the West Midlands regional and local plans reflect our priorities for the environment.

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