



Box 4

EA-Southern

LEWES FLOODING FACT SHEET : ENVIRONMENT AGENCY

- Development in Lewes over the centuries has left a fairly constricted channel and flood plain in the town centre. This is further complicated by the tides in Lewes, the effect of which reaches upstream as far as Barcombe. Combination of flood flows coming down the Uck and Ouse valley towards Lewes and the tide coming up the valley is always a serious risk. The chalk fed Winterbourne stream is a further complication with its constricted and tortuous channel.
- With current planning guidance there has been little development in Lewes in the last ten years which has not had floor levels raised above flood levels or other mitigation measures.
- Following the flooding in the 1960's there was a major reinforcement of the Lewes Ouse defences and those on the Winterbourne. A number of debris screens had to be emplaced on the Winterbourne. These require continuous clearance and pose a considerable risk. All these defences were beaten by the October Weather.
- September and early October 2000 were very wet. On 9 October over 50mm (2 inches) of rainfall fell in the Ouse valley above Lewes. On the night of 11 and 12 October much of East Sussex recorded 80mm (3 inches) of rainfall and some localities recorded 100 mm (4 inches). 80mm of rainfall is around the normal monthly average. To receive this amount in 12 – 18 hours is extremely exceptional.
- Prior to 11th October 2000 all sluices and gates in Barcombe and other areas of the Ouse valley had opened automatically in an attempt to cope with the already huge river flows.
- This extreme rain fell on the already saturated ground and immediately ran off into streams and watercourses. It completely swamped them, the whole of the Ouse Valley flood plain including Uckfield and Barcombe itself.
- This massive flow of water moved relatively swiftly down the Uck and Ouse valley meeting the tide at Lewes. Some flooding began at the peak of the tide but the majority happened slightly after the tidal peak.
- Flood Watches and Flood Warnings had been issued on the 9th and 10th for the Ouse and Uck. A severe flood warning for the Uck and Uckfield was issued at 0240 hours on 12 October. A severe flood warning was issued for Lewes at 1110 hours. This was more than two hours before major flooding began.
- Much of the Ouse Valley had between 7–8 times the average monthly rainfall in October. This led to further flooding events in the valley which thankfully were not so severe as the 11th and 12th.



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- Since the flooding in Lewes, the Environment Agency has carried out major repairs to defences damaged by the flooding. This includes walls, pumping stations and other facilities. With the Winterbourne Stream remaining high extensive channels/screen clearance remains a huge priority. Following support to Southern Water in keeping the foul sewage system operational, environmental protection staff have also worked to assist in the resultant pollution clear up. The Agency has also commissioned a report (at the instigation of the Minister Elliott Morley) into the flooding and what can be done to reduce the risk of further events. The study will be completed in the New Year.
- The Environment Agency has a duty to supervise all matters relating to land drainage and flood defence in England and Wales.
- The Environment Agency has powers to maintain and construct flood defences on stretches of main river. It has powers to maintain and construct sea defences.
- The Environment Agency is responsible for issuing flood warnings. They are distributed to local authorities, emergency services, via the media and to individuals by the free automatic voice messaging service (AVM). The warning levels comprise Flood Watch, Flood Warning, Severe Flood Warning and All Clear.
- The Environment Agency is a statutory consultee for all local authority planning matters which affect the environment/lie in the flood plain. Planning replies to local authorities use government issued planning guidance and local knowledge. Prior to the 90's guidance suggested that, by and large, if a flood plain had good defences the development may be allowed.
- There are a series of Flood Defence Committees in England and Wales which have executive control over all Environment Agency flood defence and land drainage activities. Flood Defence committees are composed of Local Authority (County/ Unitary Authority level) and government (Ministry of Agriculture, Fisheries and Food) appointees.
- The Sussex Flood Defence Committee receives an annual programme of work from the Environment Agency. Should it agree with the programme the required funding must then be raised by a levy on the Local Authorities and through government grant aid on construction of new schemes.
- Every river and stream has a flood plain which the river spills out onto following severe weather. The size of the flood plain depends upon the soil and geology, the size of the river and its gradient.
- Whilst it is possible to reduce the risk of flooding on the flood plain by the construction of flood defences, it is impossible to remove the risk completely. However good the defences are they will be beaten by nature from time to time.
- Given the risk of flooding it is best to avoid development of homes and businesses in the flood plain wherever possible.
- The Environment Agency has used its powers to construct and maintain flood defences in the Lewes area.

Our ref: PM/FG/L762

Your ref:

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Mr John Crawford
Chief Executive
Lewes District Council
Lewes House
32 High Street
Lewes
BN7 2LX

Dear John

FLOODING IN THE SUSSEX OUSE VALLEY AND LEWES

Following the disastrous flooding events in Lewes, Uckfield and the Ouse Valley, my Hydrologists and Engineers have made an initial appraisal of the return period of the rainfall behind the floods. This is obviously only a preliminary estimate and will require refinement when compared against the river flows and levels involved.

The initial appraisal indicates that this was a very extreme event with a return period of at least 100 years. That is in any one year there is certainly a 100 to 1 chance against it happening. This information is a preliminary guide and will be verified by our independent consultants. They are working on the flood, its aftermath and what can be done to reduce the risk of future flood events. It is likely to be of the right order magnitude but must be linked to possible climate change effects.

I trust that this information will be of use to you.

Yours sincerely

Peter Midgley
Area Manager-Sussex

