

#### Edexcel Geography GCSE Sheffield Floods

#### Case Study Flashcards

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#### What weather contributed to the flooding in Sheffield in June 2007?







What weather contributed to the flooding in Sheffield in June 2007?

Heavy and prolonged rainfall.







## How much rain fell in 48 hours on the 15th June in Sheffield?







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#### Over 90mm.







### How much rain fell in 24 hours on the 25th June in Sheffield?







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# Nearly 100mm (highest daily rainfall ever recorded).







#### June was the wettest month recorded in Yorkshire since what year?







### June was the wettest month recorded in Yorkshire since what year?









## How much rain fell in Sheffield in June 2007?







#### How much rain fell in Sheffield in June 2007?

#### 286mm.







## Why did Sheffield's topography (landscape) contribute to flooding?







Why did Sheffield's topography (landscape) contribute to flooding?

There are many hills in Sheffield, meaning rain is quickly transported into the rivers via runoff from these hills.







## Why is Sheffield particularly vulnerable to flooding?







#### Why is Sheffield particularly vulnerable to flooding?

## Three fast flowing rivers (and many other tributaries) meet in Sheffield's centre.







## Which fast-flowing rivers meet in Sheffield's city centre?







### Which fast-flowing rivers meet in Sheffield's city centre?

#### The River Loxley, Sheaf and Don.







#### Which river burst its banks leading to Sheffield 2007 flood?







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#### The River Don.







## What blocked river channels and led to more flooding in 2007?







### What blocked river channels and led to more flooding in 2007?

#### Fallen trees.







### How has urbanisation in Sheffield affected the natural drainage?







How has urbanisation in Sheffield affected the natural drainage?

Impermeable surfaces in the city centre block rain water from draining naturally. Instead water is directed into urban drainage systems.







### How did urban drainage systems in Sheffield contribute to flooding in 2007?







How did urban drainage systems in Sheffield contribute to flooding in 2007?

Drains became overwhelmed with water, leading to widespread flooding in the city.







## Where was the worst flooding damage seen in Sheffield?







Where was the worst flooding damage seen in Sheffield?

In the low-lying natural floodplains of the River Don, where land use is industry and housing.







## How has poor river management and urbanisation contributed to flooding risk?







How has poor river management and urbanisation contributed to flooding risk?

Impermeable surfaces cover floodplains, and rivers have been squeezed into man-made channels. This means rivers have no way to naturally expand and flood to reduce river levels.





### Were flood defences effective in Sheffield during the 2007 floods?







Were flood defences effective in Sheffield during the 2007 floods?

Some flood defences were not strong enough and were breached, such as at Meadowhall Shopping Centre,



