



BOSCASTLE FLOOD 2004: Natural weather hazard events - flash flooding UK

CAUSE

LOCATION: north coast of Cornwall

PHYSICAL CAUSES:

- 75mm rain fell in 2 hours
- Caused by low pressure system—warm moist air from the Atlantic Ocean. Cooled as it rose over the land created thunderstorms and intense rainfall. Orographic rainfall contributed as low-pressure system hit Bodmin Moor.
- Ground already saturated (full of water) so rain ran off the land into the river channel.
- It is in a steep sided valley close to the confluence (joining) of 3 rivers—the Jordan, Valency and Paradise. 2 billion litres of water ran down the valleys into Boscastle.

HUMAN:

- Old bridge in the village has a low arch over a narrow river valley. Flooding was made worse as trees and vehicles in the flood water were trapped under the bridge forming a dam.

OVERALL: causes were mostly physical, created by the extreme weather hazard of a flash flood caused by a low pressure system over the Atlantic ocean and Boscastle.

CONSEQUENCES

- **ECONOMIC:** 58 properties, 4 businesses destroyed. Roads/bridges damaged
- Tourist numbers dropped hugely after—90% local economy relies on tourism.
- **SOCIAL:** Sudden flood: people couldn't evacuate. One person seriously injured. People suffered mental health problems due to stress of property damage and insurance claims. NO fatalities.
- **ENVIRONMENTAL:** 50 cars washed out to sea—causing environmental pollution for marine habitats.

RESPONSES

- Emergency services quickly responded to save people in Boscastle. 100 people air lifted to safety by 7 helicopters
- Locals and tourists were looked after in local accommodation and village hall
- Homes/businesses eventually rebuilt
- Bridge eventually rebuilt with higher bridge—debris is less likely to dam the river.
- £10 million new flood defence scheme opened in 2008 to improve river flow.

OVERALL: well responded to in short and long term, though home and bridge rebuilding take a while due to insurance claims.

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Global hazards topic