

Causes of river flooding

Causes of flooding

- **A steep-sided channel** - a river channel surrounded by steep slopes causes fast surface run-off.
- A drainage basin, consisting of mainly **impermeable rock** - this will mean that water cannot percolate through the rock layer, and so will run faster over the surface.
- A **drainage basin in an urban** area - these consist largely of impermeable concrete, which encourages overland flow. Drains and sewers take water quickly and directly to the river channel.
- **A lack of vegetation or woodland** - trees and plants intercept precipitation (ie they catch or drink water).
- **Very wet soil** – soil that is already saturated allows water to build up on the surface
- **Very dry soil** – this prevents water from sinking in

1. Explain using a diagram one cause of flooding.

Causes of flooding at Boscastle 16th August 2004

- One month's rain fell in two hours
 - Boscastle is surrounded by steep sided valleys
2. Explain one cause of flooding at Boscastle.

Short term responses to Boscastle flood

- Debris and silt was cleared from buildings (1850 tonnes in total)
- Rescue helicopters sent in and saved 150 people.
- People worked together to clear the destruction.
- People were put up in temporary accommodation.
- Sand bags put down.
- People donated money to the red- cross appeal.

Long term responses

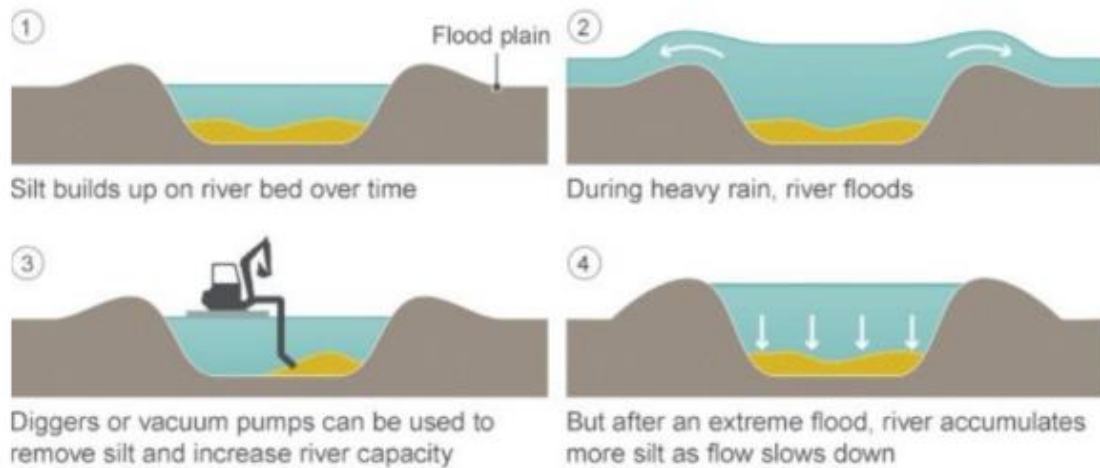
- The relief channel for the river Jordan was made wider.
- River banks and flood walls were raised.
- Height of the bridge raised.
- Damaged roads and bridges restored.

3. What is the difference between short term and long term responses to Boscastle floods?

Short term responses

Long term responses

How dredging works



Dredging normally refers to increasing the depth of the **river** channel by removing silt that builds up over years. It would usually take place using either a barge with a vacuum or a digger removing material while stationed on the bank.

Stakeholder views on dredging.

- Dredging will make the rivers 90% more effective at flushing out the water.
- Dredging programmes will create more jobs

Stakeholder views on dredging.

- Rivers should be allowed to flood naturally. Nature needs to come before economics and people.
- People object to paying more tax due to the cost of dredging programmes.
- It is a waste of money because climate change could create more issues anyway.
- Dredging has a negative impact on habitats and fish are severely disturbed.

4. Dredging is controversial. Why do people disagree about dredging?

People support dredging because

People oppose dredging because