

River Processes and Pressures Case Studies

Topic	Case Study
Impacts of flood	<p><u>Boscastle, UK</u></p> <p>Causes:</p> <ul style="list-style-type: none"> • Heavy rain – a month’s rainfall fell in two hours • Saturated ground from previous rainfall • The drainage basin had many steep slopes and areas of impermeable slate causing rapid runoff • The flooding coincided with high tide worsening the impact <p>Impacts:</p> <ul style="list-style-type: none"> • Homes, businesses and cars of 1,000 people were damaged • Tourism income lost • Lots of subsequent insurance claims
Hard engineering	<p><u>Thames Barrier, London</u></p> <ul style="list-style-type: none"> • The Thames barrier was built in 1982 • It closes the river during periods of flood risk to stop extra water entering • It was closed 41 times during the 2014 floods • Cost £534 million <p><u>Embankment, London</u></p> <ul style="list-style-type: none"> • Raises the river banks by 5 metres • Speeds up river flow by reducing friction • Prevents the flooding of Central London
Soft Engineering	<p><u>River Skerne, Darlington</u></p> <ul style="list-style-type: none"> • Manmade meanders resulting in a larger carrying capacity and reduced risk of floods • Afforestation <ul style="list-style-type: none"> ○ 20,000 trees planted ○ increasing interception reducing surface runoff • Wetland marshes created <ul style="list-style-type: none"> ○ increased fauna habitats ○ permeable land with vegetation so it can store rainwater