

Excellent river processes, features and management work!!

Add a sentence in each box to explain the formation of the landform.

Figure 14

1. River is beginning to meander ✓

2. Fastest flow on the outside bend results in erosion on this side of the channel and slower water on inside bend causes deposition ✓

3. Meander shifts and two outside bends get closer together ✓

4. Neck of meander is broken through by floods. River follows the shorter course, leaving an oxbow lake without water ✓

river tran...

Formed as either a river or stream cuts its valley into local rocks as it enters the valley. It preferentially follows and erodes zones of weaknesses within the bedrock that typically consist of interlocking sets of joints.

Draw annotated diagrams below to explain the formation of waterfalls and gorges:

A river flows over a band of hard rock on top of soft rock. Falling water and rock particles erode the soft rock below the waterfall, making a plunge pool.

Soft rock is undercut by erosional processes such as abrasion and hydraulic action, plunge pool fills with rocks and particles and deepens. Plunge pool also making an overhang.

reservoirs	Water in reservoirs can be used as drinking water or used to generate power. • Does stop flooding and help with irrigation.	Can lead to higher greenhouse gas emissions. • It disrupts local ecosystems. • Construction takes land, trees and animals away.
Hard: straightening embankments	Water moves out of the area faster because it doesn't travel as far.	Flooding may occur downstream of the straightened channel instead as flood water is carried there faster - some can cause more erosion.
Hard: Flood relief channels	• New channel brings new opportunities like fishing/walking. • Protects important places like town centres.	• Wildlife habitats lost. • Flooding may occur downstream. • Increased erosion downstream due to the velocity of the water.
Soft: Flood warnings and preparation	• People become aware and have time to evacuate. • Time/the chance to stop the flow of the flood can happen before it hits.	• Some people cannot access it. • Flash floods may happen too quick for warnings to get to people. • They don't stop the flood they just warn people.
Soft: Floodplain zoning	• Avoiding building on high risk flood plains. • Avoids damage to property. • More green space. • More agriculture, increased infiltration.	• Doesn't help areas where floodplains are already urbanised. • Planning issues harder to enforce due to technology and silvaging.
Soft: planting trees and river restoration	• Benefits the quality of the ecosystem. • Enhances biodiversity in the area by restoring natural functions.	Some land won't be able to be built on due to flood plains. • Habitats get flooded. • Settlements lost leading to displacement of people.