

6: River Bank Erosion

Geomorphology

Geomorphology looks at the changes to the river channel due to the movement of sediment and erosion. Figure 10 shows the main areas identified to be at risk of erosion, along with an indication of where river bank protection is required.

To ensure the safe construction and operation of the proposed flood scheme, certain identified river banks must be protected from significant erosion, whilst maintaining the natural morphology of the river bed.

Erosion Protection

Protecting a river channel against further geomorphological change often requires the protection of its banks from further erosion. The proposed flood defence structures will include some form of erosion protection, whether it is at the toe of the structure, river bank or in between. In the case of the earth embankments, it will be along their 'wet' face to ensure stability of the slope during normal flow, and flood conditions.

The proposed erosion protection measures include a combination of hard materials (e.g. rock) to protect river banks as well as natural material (e.g. willow planting) to increase river bank roughness. This will slow the flow of water to help prevent erosion - an example is shown in Figure 11. Additional softer measures (such as coir matting) are also proposed.

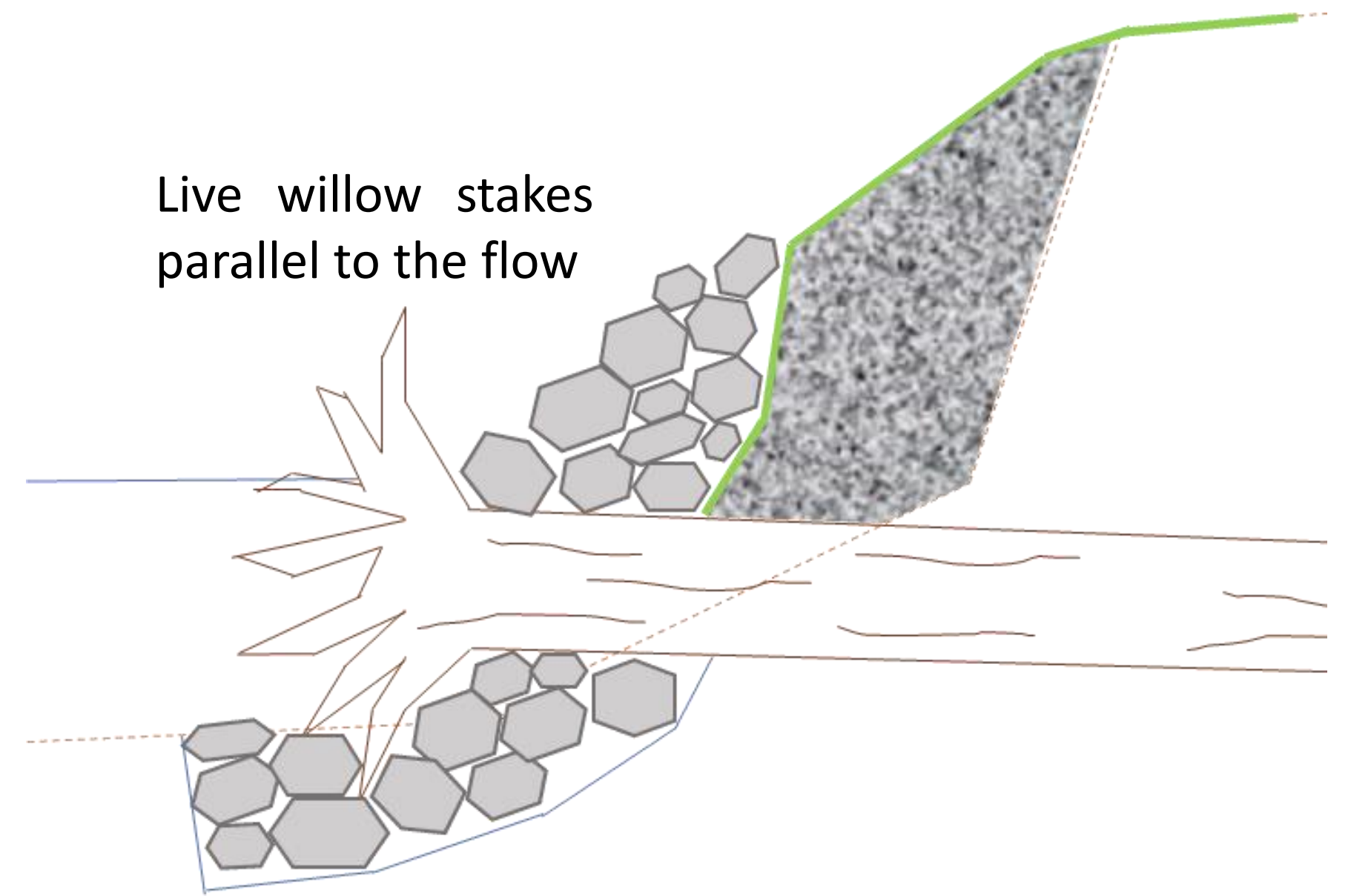


Figure 11: *Root wad sketch*

Figure 10: *Areas requiring bank protection in Comrie*

