Erosion is a natural process which is an important part of naturally functioning rivers. However, in some cases bank protection is required to protect land and infrastructure.

Before selecting a bank protection technique, it is important to understand and identify the cause of the issue and type of bank erosion. This includes looking at the energy of the river, surrounding land use, bank cohesion and any structures or modifications that may be causing the problem. A technique can then be selected to address the issue within the context of the site.

Historically, bank protection interventions have been unnecessarily over-engineered. There are a number of examples which now show how ‘green’ and ‘green-grey’ techniques can achieve the same results by working with natural processes. Sometimes grey measures are required, but ‘green’ techniques are often cheaper and more sustainable, so it is important to understand where they can be implemented. The ‘Green approaches in river engineering’ guidance document provides decision support trees which can help to select suitable techniques.

These techniques were developed to suit site specific criteria and may not apply to other locations.