

## River Darwen Riverbank Stabilisation Project



**The erosion reached within 1 metre of the pipeline.**

Salix worked with National Grid to stabilise a bank which had eroded close to a pipeline.

A 120 metre reach of river had been subject to ongoing bank instability issues.

A gas pipeline set in the bank was dangerously close to being exposed and bank revetment options were considered.

Consulting Group, WSP Environmental, brought in Salix to provide outline and then detailed design options utilising bioengineering techniques.

### Products Used

- **Coir Rolls**
- **Rock Rolls**
- **NAG C350**
- **Tensar Triax TX160**





**Graded bank prior to soft engineering works**



Rock Rolls are installed to create a toe revetment and also to act as a coffer dam to prevent sediment release from the bank works.

Stone is used as backfill up to average summer water level. Locally won soil is used above this level



**Tensor Geogrid is used to provide greater stability and safety factor to the bank.**





**Works Progressing**



**The completed Bank protected by VMax C350**





Above: Vegetation establishment 4 weeks after installation in October.

Below: Vegetation establishment in May of the following year. Note the Reed Canary Grass (*Phalaris arundinacea*) establishment in the coir rolls. This is a key stabilising grass in many gravel bed river catchments.

