

Foss Dyke bank Stabilisation



KEY DETAILS

PROJECT NAME :	Foss Dyke bank Stabilisation
CLIENT :	May Gurney Rail for Network Rail
LOCATION :	Foss Dyke, Lincolnshire
PROJECT CATEGORY :	Rail, Rivers and watercourses (under sub division Canals and lowland rivers)

A rise in pleasure boating on the Foss resulted in severe boat wash. Monitoring revealed that the rate of bank erosion was up to 2.5 metres in a year over a 2km stretch.

Hard revetments, such as sheet piling or gabion baskets were considered but dismissed because of the ecologically sensitive nature of the site. Therefore a solution was required that could meet the vital engineering criteria but also enhance the marginal habitats.

The basis of the design was to use pre-established coir rolls to absorb the wave action caused by the increasing boat wash. The coir rolls needed to be set on brushwood faggots in order for the coir roll to sit at the correct level. Initial plans looked at importing approximately 2000 m³ of stone backfill to fill the scour hole. However, when Salix were appointed as specialist sub contractor to main contractor May Gurney an alternative and innovated backfill solution was introduced as part of a value engineering exercise. 3km of shrubs and trees that were growing on the railway embankment was due to be chipped on site. Instead of chipping, the material was ideal for use in a “brushwood” revetment used to fill the scour holes. The brushwood was staked into place using chestnut fixing stakes and a 1metre wide pre-established coir pallet was placed on top of the

brush revetment at water level. This created a 1.3 metre wide cost effective vegetative revetment, ideal for absorbing wave action as well as providing excellent habitat.



Surveying erosion and failed piling



Brushwood faggots delivered by barge



All works from barge access



Six months later

CONTACT DETAILS

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