

River Wensum Rehabilitation Project

Technique: Channel narrowing, riffle creation, cattle crossings, deflectors

Project location: Bintree

River: Wensum

County: Norfolk

Project start date: August 2000

Project end date: October 2000

Length: 1500m

Cost: £45,000

Grid reference: TF998242

Site background

The River Wensum is a lowland river which rises to the west of Fakenham and flows through predominantly agricultural land joining the River Yar at Norwich. In the past this section of the Wensum at Bintree Mill has been dredged creating a deepened and over-widened channel with uniform flow, and has suffered from over-grazing and trampling by Limosin cattle. The Bintree Angling Club have ownership of the fishing rights of this stretch of the river and would like to carry out habitat improvements that will promote a wild brown trout fishery with less reliance on stocking.

Objectives

Creation of habitat features that will encourage a wild brown trout fishery with less reliance on stocking. To include channel narrowing, riffle installation, fencing, flow deflectors, tree planting and the creation of fenced cattle crossing points.

Design

Riffles were installed at random intervals, for example one riffle was created by inserting a line of concrete blocks which extended to the mid-point of the river and dumping 15 tonnes of gravel immediately upstream and downstream of the riffle. Fencing and gates were used at selected access points to control cattle access. Gravel was added to the poached banksides and across the river to the exit point on the opposite bank to encourage the cattle not to stray when crossing. The channel was also narrowed using layers of brushwood with stakes in one section and blockstones with gravel and chalk added from the small quarry at Bintree Mill. Finally, a pair of deflectors were created at the downstream end of the 1500m stretch. Willow panels were inserted at right angles to the river on both sides of the bank, and in-filled below with chalk. This method was chosen here due to the presence of water voles which placed restrictions on any features created.

Subsequent performance - RRC's views

The installation of gravel, natural narrowing from vegetation growth and narrowing using compacted chalk have, together, resulted in much more variation in channel bedform than was previously present. Whilst the scheme was successful overall, some of the riffles were not ideally designed or positioned; for example, one such riffle was constructed on a meander bend. There appears to have been fairly excessive vegetation management on the banks of the river, and two V-shaped deflectors appear to have had limited success. Despite these small problems, the river is trying to naturally adjust, for example it is utilising the gravel substrate to recreate more natural features.



Narrowed section of the Wensum



Example of riffle constructed in the channel



the River Restoration Centre Case Study Series

This site was last visited by RRC staff on 15th February 2001

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