

A River Glaven Restoration Project

**Techniques: Introducing variation in river depth, width & flow;
& re-connection of a flood plain**

Project location: Holt

River: Glaven

County: Norfolk

Project start date: May 2006

Project end date: November 2006

Length: 1 km

Cost: £20,000

Upstream grid reference: TG 057 376



Protection of
re-profiled bank

Site background

The River Glaven is a small chalkstream in north Norfolk. The river flows some 17 km, before finally entering the sea at the tidal sluice at Cley. The gradient is steep for a lowland river. The river and meadows are valuable for wildlife. However the river as a whole has suffered over past decades through changes in farming and land management practices, and policies for flood risk management.

Objectives

To improve the in-river habitat upstream from Letheringsett Ford; to re-connect the river and floodplain; and to develop an experience base which would serve the River Glaven Conservation Group (RGCG) well on other projects.

Design

- The main works carried out in the river were the introduction of 6 riffle areas (total length 65m), two of which were dual function as cattle crossings; two lengths of river narrowing (10m and 13m); the creation of 3 mid-stream islands; and 9 lengths of tree trunk as large woody debris flow deflectors at a spread of points.
- In addition 700-1,000 tonnes of spoil was removed along 130 m of a meadow. The re-profiled bank was protected from erosion by use of hazel revetment & coir matting.
- The 6 sycamore trees felled on site provided the large woody debris requirements. The posts, faggots, batons and brash used for river narrowing, island construction, and the bank protection work were produced by coppicing hazel trees on site or nearby. The stone and gravel came from local sources, both less than 3 miles from the site, as did the gravel. Large stone was recovered by hand from the spoil, which was later spread over an arable field.



River narrowing

Acknowledgements

This was a joint project undertaken primarily with the Wild Trout Trust and the Environment Agency. The Wild Trout Trust helped initiate the project and provided technical support, with generous funding through the Cinderella Chalk Rivers Project, which aims to initiate partnerships to improve the conservation status of lesser known chalk rivers.

Subsequent Performance - RRC's views (2006)

This case study is an excellent example of a successful community driven project. The RGCG, through their time and enthusiasm, have implemented a range of effective restoration techniques, the impacts of which are already apparent - the modified reach is much more lively with greater variations in flow patterns and water depth. The RGCG plan to study the effects of the restoration works on aquatic plants, native crayfish, water vole and a number of fish species.



the River Restoration Centre Case Study Series

This site was last visited by RRC staff on 23rd October 2006

Tel/fax: 01234 752979 Email: rrc@therrc.co.uk <http://www.therrc.co.uk>

Working to restore & enhance our rivers