

River Cam Habitat and Access Enhancement Project at Trumpington, Cambridgeshire

Techniques: Gravel shoals, Bank re-grading, Ditch and Sluice restoration, Bank revetments, Flow deflectors and Backwater habitat creation

Project location: Trumpington Meadows, south of Cambridge

River: Cam

County: Cambridgeshire

Project start date: April 2008 (Consult) / August 2009 (Constr)

Project end date: October 2009

Length: 1.5km

Cost: £114,000

Upstream grid reference: TL431536



Restored bank gravels, marginal vegetation and in-stream gravel shoals.

Site background

1200 new homes are to be built near Trumpington Meadows on the outskirts of Cambridge. The Cam is a County Wildlife Site (CWS) and enhancement aims to establish an adjacent 60 hectare Riverside Community Park. South Cambridgeshire District Council employed Mott MacDonald (hydraulic modelling) and ATPEC Ltd (design & contract management) with advice provided by the RRC and EA. The work was undertaken by the Fen Ditching Company. It is expected that the project will deliver important social and environmental benefits for the river & surrounding area.

Objectives

- Re-grade the banks of a historically dredged river channel.
- Raise water levels in the parallel ditch to act as a 'wet fence', and integrate with the river to create three backwater habitats.
- Introduce diversity to the channel in the form of flow variation for fish spawning and invertebrate habitat opportunities.
- Improve public access to the river at less sensitive points.



Log jam revetment with the flood storage area behind

Design

Site investigation, hydraulic modelling and detailed consideration of longitudinal surveys have been used to ensure that the restoration design is appropriate to the landscape and river's form. Eight gravel shoals 195m in length, and four flow deflectors locally diversify water velocities to scour silt from the bed. By placing 1200 tonnes of gravel, the bed has been raised to compensate for historic dredging which over deepened the river. Bank re-grading has improved public access to the river. Where levees have been removed flood waters are to be allowed to spill onto a wet meadow delivering local flood storage and biodiversity benefits. Wooden revetments (faggoting and large logs) over 330m in length will increase the river's fish and invertebrate holding capacity. Two new sluices have been installed to hold a great depth of water in a ditch that will act as a 'wet fence' and a backwater for fish spawning and nursery. Vegetation taken out has been re-used to plant up ditches.

Subsequent performance - RRC's views (Nov 2009)

Public safety has been increased in a manner which should provide new recreational areas away from sensitive wildlife area. By leaving marginal vegetation where beneficial, it is hoped that the banks will naturalise within a year. Some erosion control matting has been used and in places extra gravel has been placed to protect against bed scour. Flow diversity has increased and there are new habitat opportunities appropriate to the river's character (e.g. backwater ditch system and rootball deflectors). Bank revetments have been well designed and constructed.



the River Restoration Centre Case Study Series

This site was last visited by RRC staff on 16th October 2009

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