River Cam Restoration in South Cambridgeshire: Increasing biodiversity and improving flood control

In South Cambridgeshire, an exciting project to restore over 1.5km stretch of the River Cam was completed in October 2009. The Biodiversity Partnership grant contributed to a much bigger project with funding received from Housing Growth Fund, Environment Agency, Wild Trout Trust, Cam Valley Forum, and our grant helped to make this a bigger scale project than otherwise possible. The restoration work included creating 8 gravel shoals to enhance the river's flow to increase biodiversity and encourage wildlife. River banks were re-graded to enable safe public access to certain sections of the river and to protect more sensitive sites. Tree roots were used to create flow deflectors to reduce siltation and to provide fish cover and habitat.

River Cam Work and Flooded Meadow; Photos Rob Mungovan

An important element of the project was ditch restoration and the selective removal of flood levees to control flooding and high water levels along the River Cam. A 1 km ditch system was restored, reconnecting the river to a flood meadow in the river's floodplain to improve flood water flows. During recent local flood events, the results of the restoration work were tested and the constructed ditch system and restored flood meadow filled perfectly, with adjacent land experiencing reduced flood levels. The breaches made in the levees were seemingly easing the flood pressures elsewhere in the local catchment. The project had created areas to protect fish species during river flooding and during the flood no fish were found trapped on the flood meadow.

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Project Objectives:

- 8 shoals totalling 195m
- bankside regrading on 225 river stretch
- 350m in-channel improvements (better fish shelter)
- Management of trees and marginal vegetation
- Showcase example of river restoration on landscape scale

River Cam Habitat and Access Enhancement Project - key facts

The work was completed by October 2009 and included:

- The length of the River Cam that has been the focus of the project extends over 1.5km and is a County Wildlife Site
- Placement of 1,240 tonnes of gravel to form 8 shoals totalling 195m
- Re-grading 225m of riverbank to create safe public access down to the water’s edge
- Creation of 358m of sensitive riverbank protection to provide cover for fish and invertebrates
- Construction of 2 brushwood and cobble flow deflectors to scour silt from the riverbed to leave clean and oxygenated gravel
- Construction of 5 rootball flow deflectors to create underwater habitat for fish and invertebrates
- Replacement of 2 sluices to hold water in 700m of an adjacent ditch system
- Management of ditches to act as “wet fences” to increase the level of protection for kingfishers and otters
- Re-pollarding of 5 willow trees and other various trees works to reduce shading of the river
- Creation of 3 backwaters to provide fish refuges during flood periods
- Selective removal of flood levees to allow a wildflower meadow to revert to being a flood meadow to control floodwater as it moves along the Cam and to provide an important habitat for wading birds such as snipe
- Creation of 2 new access culverts to allow vehicular access to the meadow over the ditch