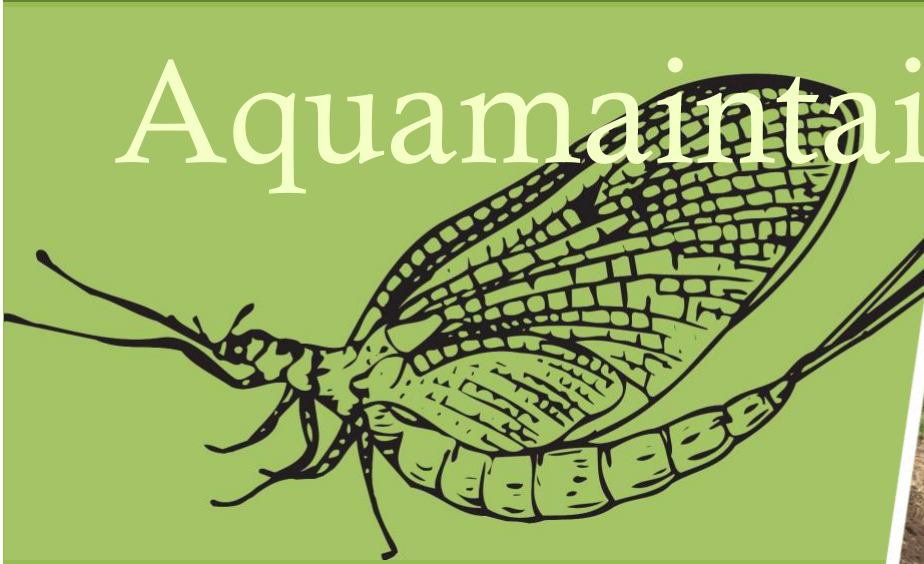


Aquamaintain LTD



Case Study



River Stiffkey, New Channel Creation, Warham, Norfolk.

Background

The River Stiffkey is a chalk stream running through North Norfolk. The Stiffkey at Warham was straightened in the 18th century to improve agricultural production of the area. This work, combined with subsequent dredging, disconnected the river from its floodplain.

Scope of the Project

The project aimed to improve floodplain connectivity and habitat diversity by cutting a new, meandering channel through the floodplain.

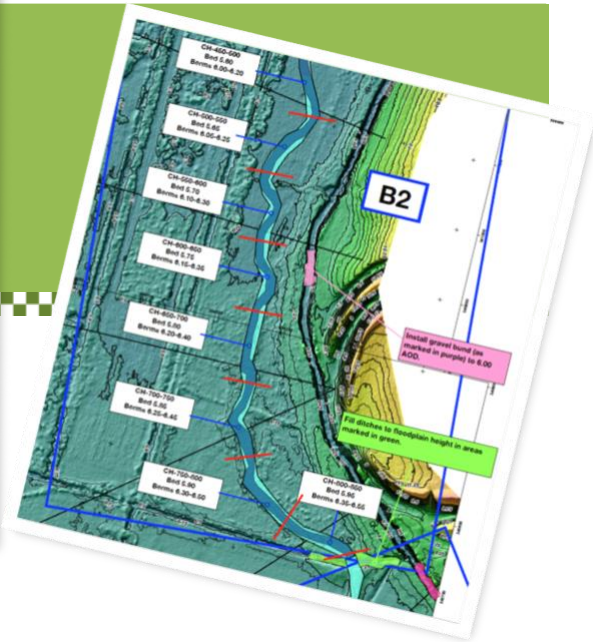
This involved the excavation of over 2km of new channel along the original natural route of the river.

Two protected species are present on site which significantly impacted the works. These were water voles and white clawed crayfish. Mitigation for both species were carried out prior to and during the works.

The project took place alongside Warham Camp Iron Age Fort. This is an area of historic and archaeological interest, so much of the work required archaeological supervision.



The project was funded through the Green Recovery fund and the Anglian Water Partnership fund.



Solution

Works involved the excavation of 2200m of new river channel. This was set out using a Leica GS18 Global Navigation Satellite System from Shapefiles supplied by NRT.

The channel was excavated in two stages with the use of a 22t excavator with tilt rotator to aid the shaping of the channel.

The excavation was kept intentionally uneven to create wide variety of water depths and velocities which mimicked the natural characteristics of the original river channel.

Spoil from the excavation was spread adjacent to the channel in a 100mm layer along the flood plain.

Due to the sensitive historic nature of the site, excavations closest to the iron age fort were supervised by an archaeologist.

Once the new channel had been excavated 200t of sand and gravel were won onsite from a borrow pit.

This was introduced along the stretch in specific locations to help kick start natural geomorphic processes.

Once the new channel had been connected bungs were installed along the old channel so that water was retained. Pipes were installed to maintain a sweetening flow to provide further habitat diversity.

A large quantity of woody debris was then introduced into the channel.



For More Information...

Aquamaintain LTD
Unit 1E
Lake View Fishery
Crawley Down
West Sussex
RH10 4TA
(01293) 886900

www.aquamaintain.co.uk
info@aquamaintain.co.uk



Aquamaintain
Green fisheries management

