

Wild Trout Trust

Invitation to Quote: Upper Witham Floodplain Restoration Design – Easton to Saltersford

Introduction

The Upper Witham above Saltersford is ecologically very important as the head waters of the Witham Catchment. It supports species including endangered Native Crayfish, Brown Trout and Grayling. However, a combination of extreme high and low flows, pollution incidents and poor habitat are putting this section of the river under strain.

WFD data tells us that the entire section of the Upper Witham is poor for Phosphate. The section from the confluence to the headwaters to the confluence of the Cringle Brook is at poor for fish.

Like the majority of the rivers in the UK, the Upper Witham has been deepened, straightened and disconnected from its floodplain over the last 200 years. Nationally, of the estimated original 2 million hectares of functional, wetland, lowland floodplain only 3000 hectares remained by 2015.

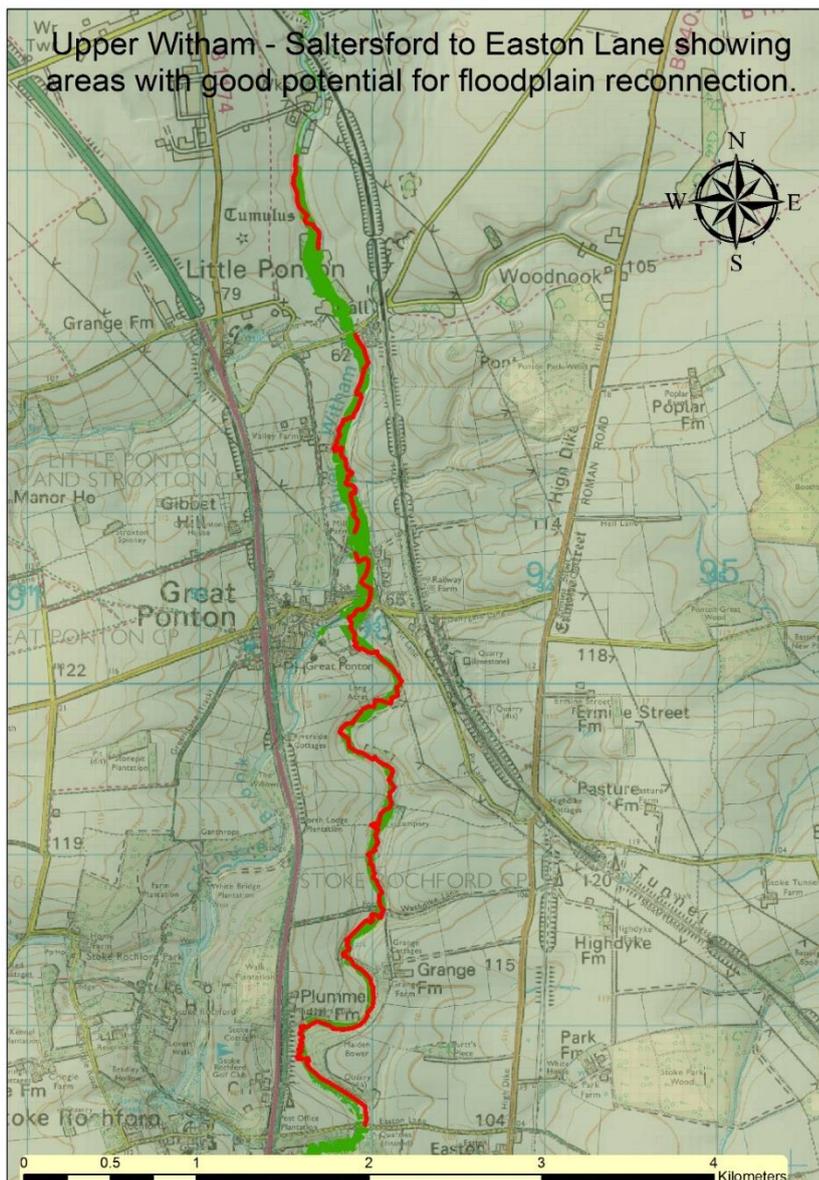


Figure 1 Area for Options appraisal.

Background

Several in-channel habitat improvement projects have been undertaken in this section over recent years. These include:

- Downstream of Easton Lane in-stream habitat works
- Grange Farm river realignment-weir bypass (Katie Murphy/Tim Jacklin)
- Great Ponton in-stream habitat works (Matt Parr)

A review of past projects is available here:

<https://dulavx8rjuiml.cloudfront.net/avreports/Upper-Witham-Project-Review-2018.pdf>

From reviewing past projects, we have learned that habitat works within the existing channel are not particularly effective because they do not address the fundamental problems of past alterations to the river's morphology, i.e. bed-lowering (floodplain disconnection), straightening (realignment) and widening (re-sectioning).

The more ambitious project at Grange Farm (river realignment) achieved the goal of restoring longitudinal connectivity (bypassing a weir) but has had problems with retention of introduced gravels (constructed riffles) and highlights the need for careful modelling of the design and working with natural processes.

As a result of the above lessons learned, design and planning work is currently ongoing at Grange Farm to (1) address the issues within the re-aligned channel and (2) undertake a restoration project in the reach immediately downstream to Washdike Lane (including increased floodplain connectivity and the principles of 'stage zero' restoration).

The principle aim of this contract is to identify opportunities for future projects for development and delivery within the next five years. The key themes of potential projects are working with natural processes, restoration of natural floodplain connectivity and function and restoration of natural river habitat.

Past project work has built positive relationships between landowners, Wild Trout Trust and its partners (EA, Lincolnshire Rivers Trust). Of the three large landowners within the wider upper Witham catchment, all have expressed an interest in this type of work following recent walkover reports by the Wild Trout Trust. One landowner is particularly enthusiastic about developing project ideas and this is why we have chosen their section (Saltersford to Easton) to begin with.

An important element in the success of projects is how the land is subsequently managed and how this fits into existing and future agri-environmental options for the landowner. This contract must include an appraisal of this for any restoration proposals.

Previous walkover reports identified good potential within this section for large scale floodplain reconnection. This could involve river bed level raising, floodplain lowering and/or realigning the river course to a more natural, sinuous form. Completed projects will be used as a showcase for other landowners and their tenants elsewhere in the catchment.

Deliverables

- 1. Options appraisal for approximately 7.5km of the Upper Witham between SK 92547 32907 and SK 92965 27412, informed by:**
 - Review of existing information
 - Collection of additional information, e.g. geomorphological and topographical surveys, LiDAR survey, topographic and hydraulic modelling.
 - A broad-scale assessment of any potential archaeological constraints on options within the reach.
 - Assessment of options against existing and potential future agri-environment agreements/options for the landowner.
 - Presentation of options as individual 'work packages' for future development
- 2. Following consultation and agreement with client and stakeholders, further detailed development of one project to full design, including:**
 - Detailed consideration of agri-environment implications with landowner
 - Services/utilities searches
 - Preliminary Ecological Assessment
 - Archaeological DBA and geophysical survey
 - Detailed design drawings
 - Bill of quantities and outline costs
 - Method statement and designer's risk assessment

Timescales

- Invitation to quote released 1st November 2021
- Quotes to be received by midnight 19th November 2021
- Consultant appointed 1st December 2021
- Work completed by end of February 2022.

Contact

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