



Candover Brook – Abbotstone Phase 3 appendix



A Project Proposal by the Wild Trout Trust – August 2014

1. Introduction

This report is a Wild Trout Trust (WTT) project proposal and is an appendix to a Candover Phase 3 report written in June 2013. The purpose of the additional appendix is to review the project ideas discussed in 2013 and to firm up on the scope of works to be undertaken as part of a three-way partnership between the WTT, the Environment Agency (EA) and The Piscatorial Society (PS).

A site meeting was convened on the 20/08/2014 between Richard Redsull (EA), Bob Wellard (PS), Andy Thomas (WTT) and Charlotte Rose from Natural England to discuss the key objectives and scope of the proposal. It is understood that the landowners (The Grange Estate) are supportive and keen to see the river further enhanced.

This follow-up report sets out the proposal for improving habitat quality primarily aimed at improving opportunities for brown trout (*Salmo trutta*) and white clawed crayfish (*Austropotamobius pallipes*).

Long sections of the Candover Brook at this location are comparatively wide and shallow, with flat bed topography consisting of mainly unsorted gravels and soft silt (cover photo). The open and uniform nature of the channel makes this a hostile environment for adult trout and crayfish. The lack of adult trout holding habitat makes them particularly vulnerable pre-, during and immediately post-spawning. Creating more diversity in the bed topography will help to build a resident adult population and join up fragmented habitats and potentially give resilience to both the trout and also crayfish populations which are particularly fragmented and vulnerable.

A key objective in delivering the enhancements is not only to improve holding habitat for adult trout but also to sort and improve gravel quality for enhanced spawning opportunities.

Comments in this report are based on discussions undertaken during the site meeting. Although a much longer reach of channel was discussed in the original phase 3 report, the group decided to concentrate on the 150m reach running through the first meadow downstream of Abbotstone road bridge at SU 564 345 down to SU 563 343. See aerial view in fig 1.

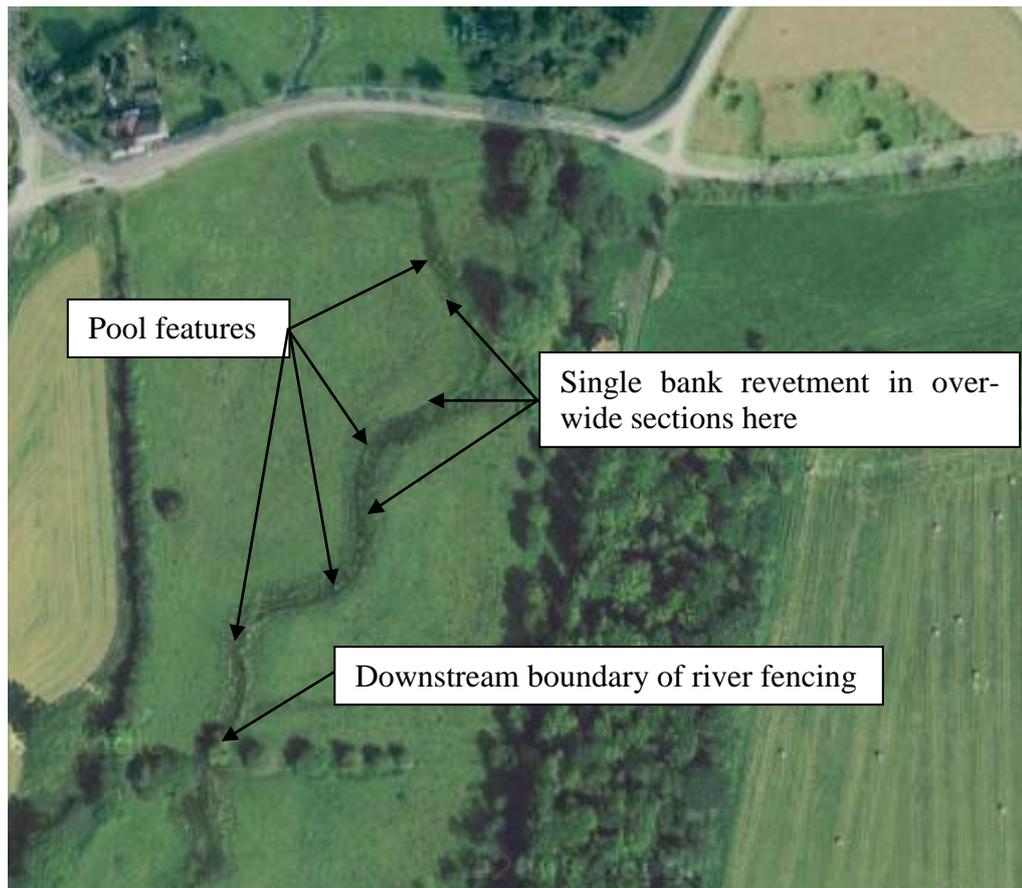


Fig.1 Site plan of the 150m reach downstream of Abbotstone Bridge

2.0 Scope of work proposed.

2.1 Fencing

Erect temporary fencing to exclude cattle from soft, vulnerable river banks. A buffer strip of 5 to 10m in width is required with the provision for controlled access for maintenance grazing on the inside of the fenced zone. RR is to negotiate with the tenant grazier and the Estate to find a prescription that works for the farmer and which does not compromise the estates agri-environment stewardship payments. A review period to evaluate the impact of the stock fencing on the conservation value of the meadows will be agreed with NE. It is estimated that at least 300m of fencing will be required. Estimated budget £1500.

Action RR, BW and CR

2.2 Channel revetment.

In several sections the wetted channel has lost bank definition, resulting in an over-wide channel for the average discharge. The fencing will be a key part of the rehabilitation process but short sections of new revetment using a

combination of low gravel bunds (as used successfully by PS) and faggot bundles will be required. Traditional backfilling techniques will be kept to an absolute minimum to help promote low, wet backwater habitat. Breaks in the revetment line will be created to ensure there is lateral connectivity with the adjacent flood meadows. A supply of faggot bundles and a modest quantity (10 metric tonnes) of gravel is already available on site with costs only required mobilization and construction (Estimated cost £1000)

Action RR, BW and AT

2.3 Holding pool creation.

The flat, featureless bed topography can be enhanced using a combination of the "Dig and Dump" method and the use of large woody debris flow deflectors to help mobilise fine sediments. The features will be created with a tracked excavator and supervised by **AT**. Deep pools are not the objective but the occasional holding pool with a maximum depth of 1m will help to create an improved environment for autumn running brood stock. Material won from the bed can be used to promote a combination of a pinched pool neck as well as an "up-ramp" of useful gravel on the tail of each pool, creating improved spawning opportunities. A maximum of four features is recommended in the target reach and will be located on the outside of existing meanders. A local groundworks contractor to be hired for two days at a cost of approximately £1000.

Action AT RR BW.

Parr and crayfish habitat. 2.4 Planting and additional

On advice from **CR**, the site was not viewed as a high priority site for maintaining a "no tree" policy. The provision of some low scrubby cover via thorn or willow trees is considered to be a critically important habitat for both trout and crayfish. Further improvements can be achieved by seeding sections of shallow margin with the numerous large Fobdown flints that can be made available by the Estate. A modest budget for labour is needed but materials can be largely won from the site and transplanted (£500).

Action AT RR BW and Ben Rushbrook (Hants & Isle of Wight Wildlife Trust) for crayfish advice.

3. Conclusion

Quick action is needed if this project is to be delivered this autumn prior to trout spawning activity. Key actions are for the land owners and tenants to agree the scope of the works. **Action RR and BW.**

The completion of a FD consent application form. **AT** to complete the form and **RR** to manage the FDC consultation. EA to provide NE with the necessary site consultation.

Raise a £4000 budget to deliver the project. The WTT is holding a £2000 underspend from previous Candover phase which can be put into this project.

RR and BW to explore potential contributions from the landowner and tenant. The scope of the project can be trimmed to the size of the project pot raised.

Acknowledgement

The WTT would like to thank the Environment Agency for supporting the advisory and practical visit programme.

Disclaimer

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