



**Advisory Visit**

**River Noe, Derbyshire**

**June 2014**



## **1.0 Introduction**

This report is the output of a site visit undertaken by Tim Jacklin of the Wild Trout Trust to the River Noe, Derbyshire, on 23<sup>rd</sup> June, 2014. Comments in this report are based on observations on the day of the site visit and discussions with Francis Bohn of Peak Forest Angling Club.

Normal convention is applied throughout the report with respect to bank identification, i.e. the banks are designated left hand bank (LHB) or right hand bank (RHB) whilst looking downstream.

## **2.0 Catchment / Fishery Overview**

A previous advisory visit to the Bradwell Brook (River Noe) for Peak Forest AC was carried out in 2009 and describes the river and fishery. This visit was requested specifically to look at a short section of river from which a pipe bridge / ford has been removed.

## **3.0 Habitat Assessment**

The section of river in question is on beat 3 and formerly a pipe bridge / ford consisting of a row of large concrete pipes was present across the river channel. This was removed about two years ago because the river was cutting around the edge of the structure, eroding the right bank; the cover photo shows the site now. Prior to removal, there was an area of deeper water associated with the structure caused by scouring of the river bed; this area held fish and was a popular spot with club members. Since removal, the area has filled in with gravel and become a uniform and shallow glide.

Taken in the wider context of the River Noe, the removal of the ford is beneficial to the river habitat and the fishery. The removal has restored natural sediment transport processes and removed a barrier to free fish passage. Although a fishing "hotspot" has been lost, this is compensated by changes elsewhere. For example, the pool immediately downstream has scoured deeper and looks ideal for holding larger fish; the formerly eroding right bank has stabilised and vegetated; and the shallow glide formed upstream could be enhanced using the methods described below.

It was discussed whether some in-stream structures formed from boulders or large tree trunks could be introduced to re-create the bed scour formerly

provided by the ford structure. This is not recommended as it is likely to be a costly exercise with uncertain results and possibly unintended consequences, such as the return of bank erosion. The scale of structure required to re-create the bed scour of the ford would be likely to re-create the bank erosion (the reason it was removed).

A recommended alternative approach is to create cover within the river channel which will encourage fish to hold in this area. At present the reach is shallow and open with little cover but some simple options are available to improve this situation.

#### **4.0 Recommendations**

The following measures are recommended to improve cover within the section (see Figure 1 and photographs):

- Cut some hawthorn bushes and introduce them whole to the river, fixed to the right bank. This is a proven and established method (known as "tree kickers") which provides instant cover for fish, has a narrowing effect upon the channel (promoting bed scour and increased depth), and protects banks from erosion. There are suitable hawthorns present in the field on the right bank (subject to landowner permission). These would be fixed to existing tree roots/trunks on the right bank with steel cable (Photos 2, 5, 6).
- Partially cut and lay into the river margin some of the young alder trees on the left bank (like hedge laying) (Photos 1, 3, 4).
- Plant some water crowfoot (*Ranunculus* sp.) in the open, un-shaded section. The club have recently undertaken similar planting further downstream.

Please note it is a legal requirement that all the works to the river require written Environment Agency (EA) consent prior to undertaking any works, either in-channel or within 8 metres of the bank.

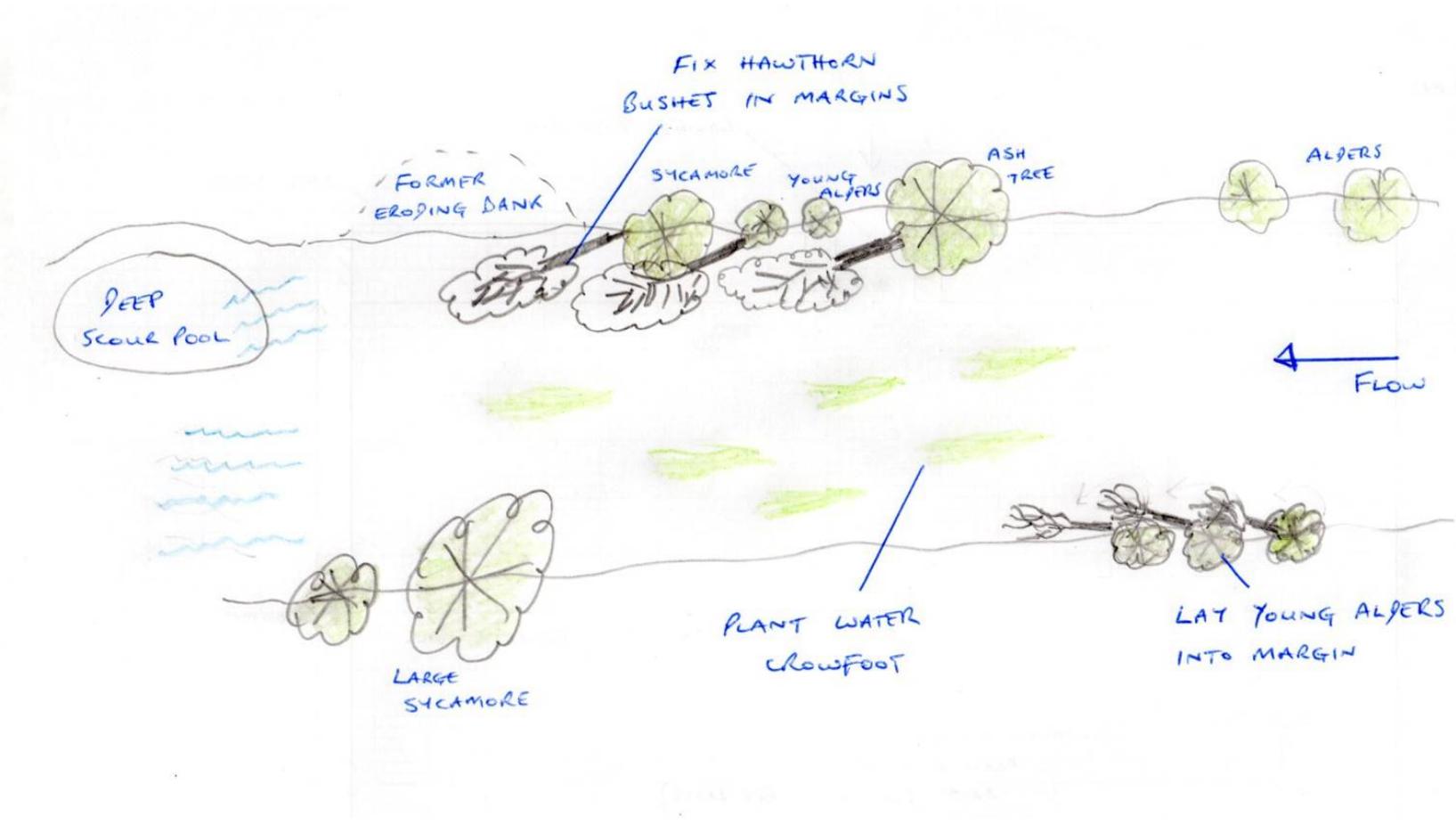


Figure 1 Suggested enhancements



**Photo 1** The young alders indicated could be hinged into the river margins, using the method in photos 3 and 4



**Photo 2** Hawthorn bushes could be anchored to the root structures of the trees on the right bank, using the method shown in photos 5 and 6. Water crowfoot could be planted in the open shallow areas.



**Photo 3 Partially cut and laid tree. This provides a securely fixed cover which will hold fish.**



**Photo 4 As above, wider view (River Goyt, Derbyshire). Young trees such as alder, willow and hawthorn up to about 15cm trunk diameter are most suitable.**



**Photo 5** A “tree kicker” installed in the River Petteril, Cumbria, securely cabled to a tree stump. This provides cover and changes the depth profile by promoting deposition (shallowing, yellow arrow) amongst the branches and scour (deepening, red arrow) of the open channel.



**Photo 6** Steel cable used to securely anchor tree kicker structures.

## **5.0 Making it Happen**

The Wild Trout Trust is able to offer further assistance in the form of:

- Help with preparation and submission of the necessary consent applications for the recommended works.
- A practical visit to assist the club in carrying out the recommended works and demonstrate the techniques involved.

Because of sponsorship received by the WTT, there would be no charge to the club for this additional help other than the travel expenses of the WTT officer for site visits.

## **6.0 Acknowledgement**

The Wild trout Trust would like to thank the Environment Agency for their continued support of the WTT advisory visit service.

## **7.0 Disclaimer**

This report is produced for guidance and not for specific advice; no liability or responsibility for any loss or damage can be accepted by the Wild Trout Trust as a result of any other person, company or organisation acting, or refraining from acting, upon guidance made in this report. Accordingly, no liability or responsibility for any loss or damage can be accepted by the Wild Trout Trust as a result of any other person, company or organisation acting, or refraining from acting, upon comments made in this report.

We have produced a 70 minute DVD called 'Rivers: Working for Wild Trout' which graphically illustrates the challenges of managing river habitat for wild trout, with examples of good and poor habitat and practical demonstrations of habitat improvement. Additional sections of film cover key topics in greater depth, such as woody debris, enhancing fish stocks and managing invasive species.

The DVD is available to buy for £10.00 from our website shop <http://www.wildtrout.org/product/rivers-working-wild-trout-dvd-0> or by calling the WTT office on 02392 570985.

The WTT website library has a wide range of materials in video and PDF format on habitat management and improvement:  
<http://www.wildtrout.org/content/index>