River Allen – Stanbridge Mill Farm

An advisory visit carried out by the Wild Trout Trust – July 2008

1. Introduction

This report is the output of a Wild Trout Trust advisory visit undertaken on the River Allen in Dorset. This report covers the section of River at Stanbridge Mill Farm.

This report is one of a series of WTT advisory visits undertaken in conjunction with the Dorset Wildlife Trust and the Environment Agency as part of the Dorset Chalkstream Project.

During the site visit the author was accompanied by Sarah Williams from the Dorset Wildlife Trust, Allan Frake from the Environment Agency and Ms Emma Thick who is the Head Gardener at Stanbridge Mill and who is responsible for the riparian maintenance.

The comments and recommendations made in this report are based on the observations of the Trust's Conservation Officer, Andy Thomas, and discussions with the owners and their representatives.

Throughout the report, normal convention is followed with respect to bank identification i.e. banks are designated Left Bank (LB) or Right Bank (RB) whilst looking downstream.

2. Description of the river.

The Allen is a delightful chalkstream that rises as a winterbourne near Monkton Up Wimborne in Dorset and flows south for approximately 10 miles before joining the larger River Stour in Wimborne Minster. The name Wimborne is derived from "twin-bournes" with the oldest parts of the town located on land situated between the confluence of the Stour itself and the Allen.

The River Allen is one of the Wessex chalk stream gems and has the reputation of being an excellent chalkstream fishery supporting good stocks of wild brown trout *Salmo trutta.* The river also supports some grayling *Thymallus thymallus* and indigenous stocks of coarse fish. As recently as 1973 the river was also considered to be an important salmon spawning stream with good numbers of fish running up as far as Witchampton Mill. Since then, salmon stocks on the Stour have largely collapsed.

Like many chalk streams, the Allen is regularly stocked with hatchery derived trout to augment catch.

The river at Stanbridge Mill is not actively used as a fishery and the primary drivers for managing the river have been to enhance its aesthetic appeal to complement the extensive formal gardens. Preserving and managing the network of channels and structures, a legacy of the site's historic association with milling, and the ongoing protection of the property from flooding are also regarded as being of the utmost importance. The owners are keen to ensure that

river related habitats are being protected, and if possible enhanced, including those that support local native fish stocks.

Old milling outlet channel within the formal gardens

Good quality trout spawning and nursery habitat on adjacent carrier

The network of high level milling carriers, bypass channels and side streams provide a wide range of in channel habitats suitable for a variety of different fish species. Milling impoundments and weirs very often fragment habitats and restrict free movement of migratory fish species. No detailed assessment of these structures were made during the visit. Because this reach is upstream of the main areas associated with migratory salmonids, it is unlikely that priority would have been given to improvements to facilitate fish passage.. It is possible that the Environment Agency have undertaken an assessment of this site and enquiries made to the Fisheries Team based at Blandford may reveal whether the Agency has identified any issues relating to structures at this site.

Removing a stone, or notching a section out of the centre of this weir would improve access for juvenile trout. Such a low impoundment would not fragment trout populations but could pose a challenge for small species such as bullhead *Cottis gobio.*

The network of channels through much of the property provided some good habitats for fish. Near the top boundary above the impounding influence of the mill there were some gravel riffles providing good spawning and nursery opportunities for brown trout. Adjacent to one such riffle there was some evidence of bankside erosion. This eroded bank face did not pose any significant threat to local riparian land and provided a different habitat niche that may well be important for some species such as kingfisher. Some erosion can be important in freeing up fresh gravels which settle downstream and form vitally important habitats for fish. Unless there was particular concern over the potential loss of riparian land, then it is recommended to leave this section to find its own equilibrium.

Good in-channel spawning habitat promoted by the steep gradient. Note the eroded bank

One key concern is the potential impact that the formal garden could have on native flora and fauna within the River Allen. Non- native plants such as Gunnera and Rhododendron should generally be discouraged from river banks. Some examples were noted on the old milling outlet, which is very much a controlled and formal part of the garden. These plants should be considered as unsuitable for bankside areas on main sections and side carriers of the River Allen and should be carefully contained.

One potential area for significant enhancement would be the currently revetted river bank adjacent to the main lawn (picture below). The use of toe boarding to create a formal end to the lawn does not provide any useful habitats for chalk stream plants or animals. The mid channel area does provide some potentially good spawning habitats for trout. Spawning value could be compromised, however, in the absence of shelter for juvenile fish that would be provided by a soft bank, shallow river margin and extensive low scrubby cover. Without this type of habitat fish fry will perish shortly after emerging from the gravel post spawning.

River bank revetted with wooden toe boards.

Toe boarding has a very limited life span and is usually expensive to replace. Establishing a more natural river margin in front of the current boarding may extend the life of the revetment and also potentially provide an alternative to the hard edged approach. Pre planted rolls of coir (coconut fibre) could be pegged in front of the current boarding and not only provide a very attractive fringe but also a biologically valuable habitat in keeping with the high conservation value of the River Allen.

There are a number of companies who could provide information and quotations on the use and supply of coir fibre rolls.

http://www.salixrw.com/site/product-bio-coir.htm

http://www.agagroup.org.uk/Bioengineering%20systems.htm

Another area of concern relates to the encroachment of marginal emergent plants into central channel areas. If left unchecked, it is possible that some carriers will become completely choked, backing up flows and compromising the diversity of in-channel habitat. The success of plants such burr-reed *Sparganium erectum* and pipe reed or common club rush *Schoenoplectus lacustris* appears to be a common problem on the river Allen and one which is quite difficult to combat. Both plants can be physically grubbed out of the river bed but this can prove to be extremely hard work. Another potential option is to consider controlling the plant with a contact herbicide.

Before using weedkillers alongside waterways it is necessary to contact the Environment Agency and obtain their written consent via form WQM1 (www.environment-agency.gov.uk/subjects/conservation/840870/840941/). It can also advise on suitably qualified contractors.

Club rush blocking the central part of the channel

Burr-reed choking a small side carrier

3. Conclusions

Much of the River Allen and the network of side streams running through the Stanbridge Mill Farm property provided a diverse mix of habitat types suitable for a wide range of native fish species.

It is unrealistic to expect that the land owner would wish to undertake wholesale changes to some of the very old and possibly listed structures that influence habitats throughout this reach. It is possible, however, that enhancements could be made to some of the structures to improve fish migration. This process would require the support and major input from the Environment Agency and may not be seen as a priority by the current owners of the property.

Care should be taken to ensure that only appropriate local native plants are allowed to colonize the margins of the River Allen. The current mill exit channel can be considered an exception as it forms a central part of the formal gardens. Extending the range of the ornamental planting to other reaches of the river and side streams should be avoided.

Some thought should be given to the treatment of banks and margins, particularly in the formal garden areas. The use of toe boarding to revet the bank is not recommended as best practise. Current boarding could be softened (and its life extended) with the introduction of pre-planted coir rolls to provide a soft “living” margin more appropriate for a river with such a high conservation value.

A priority action is to control marginal emergent plants where they threaten to choke mid-channel sections of river.

It is a legal requirement that some works to the river may require written Environment Agency consent prior to undertaking any works, either in-channel or within 8 metres of the bank. Any modifications to hard defences will require a land drainage consent on any river designated as “main river”. Advice can be obtained from the Development Control Officer.

4. Recommendations

- Control mid channel emergent plants, especially club rush and burr reed.
- Consider softening the hard toe board revetment with pre planted coir facines or faggot bundles planted with local plants such as sedge and Iris.
- Consider the requirements of migrating fish species with regard to the use and operation of water level control structures. Ask the Environment Agency if they have undertaken any assessment of the status of the structures with regard to fish migration.

- Maintain the current “scruffy” nature of the shallow carriers and main river margins which provide excellent habitat for brown trout.

5. Making it happen

There is the possibility that the WTT could help to start an enhancement programme. Physical enhancement works could be kick-started with the assistance of a WTT ‘Practical Visit’ (PV). PV’s typically comprise a 1-3 day visit where an approved WTT ‘Wet-Work’ experts will complete a demonstration plot on the site to be restored. This will enable project leaders and teams to obtain on the ground training regarding the appropriate use of conservation techniques and materials, including Health & Safety equipment and requirements. This will then give projects the strongest possible start leading to successful completion of aims and objectives.

The WTT can fund the cost of labour (two/ three man team) and materials (max £1800). Recipients will be expected to cover travel and accommodation expenses of the contractor.

Alternatively the Trust may be able to help in the development of possible project plans for the creation of new spawning and nursery habitats.

There is currently a big demand for practical assistance and the WTT has to prioritise exactly where it can deploy its limited resources. The Trust is always available to provide free advice and help to clubs, syndicates and landowners through guidance and linking them up with others that have had experience in improving trout fisheries.

Acknowledgement

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