



River Whitewater – Farnborough & DAS



An Advisory Visit by the Wild Trout Trust August 2015

1. Introduction

This report is the output of a site meeting and walk-over survey of a 2km stretch of the River Whitewater near Heckfield, on water controlled and managed by the Farnborough and District Angling Society (F&DAS).

The extent of the visit was from the fishery top boundary at National Grid Reference SU 735601, down to Heckfield Bridge at SU 739610. This stretch of the Whitewater is bisected by the B3011 road-bridge, with land-holdings mainly residing within Holdshot Farm.

The River Whitewater is listed on the Environment Agency web site as Waterbody ID number: GB 106039017240 and is listed as being in moderate condition.

The request for the visit came Karen Twine (Environment Agency, Fisheries Technical Officer for the Loddon catchment) and Mr Graham Day, representing the F&DAS fly-fishing group and was precipitated by some concerns raised over the management of riparian trees by a neighbouring landowner.

Comments in this report are based on observations on the day of the site visit and discussions with Karen and Graham.

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. Catchment and Fishery Overview

The River Whitewater, along with the River Lyde and the upper reaches of the River Loddon, form a network of north-easterly flowing Hampshire chalk streams. The Whitewater rises from the underlying chalk aquifer and bubbles up as springs in the Greywell area. The spring water percolates into a large, peaty fen habitat (Greywell Fen), which is an important nature reserve and designated as a Site of Special Scientific Interest. From here a single channel is formed and the river flows north where it joins the Blackwater just downstream of the F&DAS reach, before flowing into the Loddon near Swallowfield.

Near to its source in the Greywell and Odiham area, the Whitewater has classic chalkstream characteristics of stable flow and clear water. The underlying geology changes once the river reaches the Hook area, where the river passes over a mainly clay/gravel substrate. This results in a more unstable flow regime, slightly steeper banks and water that is tinged with more colour than that found in the upper reaches.

The River Whitewater is currently a priority water body for improvement action under the Water Framework Directive, where, according to monitoring work undertaken by the Environment Agency, the river is failing to achieve Good Ecological Status (GES) due to poorly performing fish populations. A number of factors are thought to be responsible, including diffuse pollution pressures, and fragmented habitat mainly caused by the numerous barriers found throughout the system.

The Whitewater at Holdshott Farm has been controlled by the F&DAS for many years and is run as a mixed fishery. Members of the club have access to the river from Hatchgate Bridge downstream for any-method coarse fishing from June 16th through until March 14th. Members of the fly-fishing group also have access to this reach from the 1st April for fly fishing, as well as an additional reach running upstream of Hatchgate Bridge to the top boundary, which is preserved for "fly-only" fishing. The river is stocked annually with a modest number of farm-reared brown trout and the members enjoy catching both stocked and wild trout throughout the entire length of the fishery.

3. Habitat Assessment

Habitat quality on long reaches of the beat were found to be reasonably good. The riparian trees and marginal vegetation has been managed sensitively with fly fishing carried out mainly via wading, reducing the imperative for heavy strimming and excessive tree maintenance. As a result, the river supports a diverse range of river margin habitat which undoubtedly benefits wild trout and coarse fish alike.

Long sections of the upper half of the fishery are tree lined (photo1), particularly adjacent to the LB. However, shading was not considered to be excessive at the moment, with a healthy balance of dappled light and shade hitting the channel. Many of the alder trees here have been previously coppiced and many are the same height and age. To avoid a big, expensive programme of tree work in the future, occasional clumps should be re-coppiced to promote improved in-channel weed growth and to introduce some diversity into the tree canopy itself.

Shallow gravel sites suitable for trout spawning were evident (photo 2), if comparatively limited in extent. Most of the suitable spawning and juvenile habitat sites were located upstream of the Holdshott Farm complex.

The bottom half of the fishery is much more open and from the River Hart confluence flowing down to Heckfield Bridge the river channel is composed of mainly deeper glide and occasional pool habitat. It is highly likely that this lower reach is heavily influenced by the impounding effects of Risley Mill, located approximately 1km downstream of Heckfield Bridge.

Approximately 300m upstream of Heckfield Bridge there was evidence of recent tree work undertaken by the land owner of the opposite meadow (photo 3). It is understood that this particular land owner does not own sporting rights, however, the work undertaken has not been carried out with river ecology in mind, with most

Alder trunks having been cut approximately 1.5m above water level. These trees have been coppiced before, as evident by the multi stooled nature of the trunks. A much better option would have been to leave a few of these trees to slowly mature and coppice out some sections in-between. For the best results, alders should be coppiced to the ground to promote low cover, rather than high level shading. That said, these trees will recover, even if they will take on a slightly odd appearance in the future.

Alder roots are fantastic for providing solid bank protection and also provide cover for fish as well as sometimes being utilised as a spawning habitat by species such as roach and perch. It is recommended to engage with the land owner to discuss objectives for the river and perhaps offer to help with any future tree management.



Photo 1. Stands of mature alder on the top reach adjacent to the LB. Many have been previously coppiced and a return to some rotational coppicing of short blocks will benefit the fishery.



Photo 2. Shallow gravel glides and riffles are critically important habitat but are unfortunately limited in extent. Making sure these sites function as spawning and nursery sites is a priority.



Photo 3. Line of Alders recently felled by the opposite landowner near the bottom boundary. Retaining two of three mature stools and coppicing others to the ground level to promote low cover would have been a better scenario for the river.

Steady glide habitat dominates long reaches of the fishery. In places there are good examples of low, overhanging cover provided by occasional thorn trees (cover photo) and willows. Bare margins were evident (photo 4) in a few locations and possibly reflects the slightly “flashy” nature of the lower Whitewater compared to the stable nature of true chalkstreams. These sections could easily be improved with the addition of brush wood berms, or tree sweepers (see recommendations).

The proximity of Holdshott cattle sheds to the river (photo 5) are a cause for concern, as is the level of bank damage to the first meadow immediately below the farm (photo 6). Issues associated with potential pollution via cattle sheds should be addressed by the EA and it isn't for the Angling Club to tackle their own landlord regarding this issue. Considerable improvements to the quality of the river could be achieved via a fencing project and the provision of cattle drinking bays which can be designed to provide a good habitat for juvenile coarse fish fry and reduce diffuse pollution pressures.



Photo 4. Bare margins providing no habitat for fish. A brushwood toe to the bank would provide improved winter cover for small fish.



Photo 5. The track from the farm complex and cattle sheds runs over the river bridge looks to be a direct pathway for potential pollution. At the very least the farm should be subject to a pollution prevention visit from the EA and action taken, if needed to alleviate the risks.



Photo 6. The meadow immediately downstream of Holdshott Farm requires stock fencing to protect the river from excessive siltation and diffuse pollution pressures. Any fencing could also incorporate cattle drinking bays that are ideal habitat for coarse fish fry.

4. Conclusions

The tree works undertaken on the lower end of the fishery, although poorly executed are not a disaster. The trees will recover, however; it is recommended that representatives from the F&DAS and Loddon Consultative engage with the new land owner to raise awareness about the importance of sensitive tree management. The F&DAS could consider making an offer to include these trees in their own maintenance schedules in the future.

Overall the fishery looks to be in good order. The club have a relaxed approach to riparian maintenance which benefits the ecology of the river. Care must be taken to ensure that all of the alders, which tend to dominate the middle and upper reaches, do not all mature at the same time. Some rotational coppicing is therefore recommended to help maintain a balance in the light regime and promote diversity in the shape and extent of the tree canopy.

Woody materials won from tree work could be beneficially used to create improved winter cover, especially in the toe of sections of uniform, shallow glide.

The shallow gravel glide and riffle sections on the top reach are of critical importance. Any production of juvenile trout and coarse fish here will filter downstream to populate the entire fishery. It is recommended that some pre-spawning maintenance is carried out on the "up-ramp" of the gravel glides immediately upstream of where the broken riffles begin to form. This work should take place in the first half of October and involves breaking up the hard gravel crust with fencing spikes and either vigorously raking the river bed, or jetting with modified water pumps to loosen the bed material and blow fine sediments from potential spawning sites. Spending one morning cleaning and preparing likely spawning sites could significantly boost wild trout spawning success. Information on all of these techniques, including the installation of tree sweepers, can be found on the WTT website www.wildtrout.org. Specific video guidance on tree sweepers or "kickers" (<http://www.wildtrout.org/content/how-videos#tree+kicker>) and on gravel management (<http://www.wildtrout.org/content/how-videos#gravel>) appear in the "video hub" section of the site.

Potentially there is an opportunity to train members of the syndicate and other Loddon angling club officials via a River Habitat Workshop. A number of habitat improvement initiatives have already been encouraged by the EA and partners, including the WTT, via the very successful Loddon Rivers Weeks. Potentially there is a role for the Loddon Consultative to organise some autumn events aimed at increasing wild trout production via gravel improvements and associated enhancement of fry and parr habitat. The WTT can provide the training if necessary.

5. Recommendations

- **Fully engage with the downstream neighbours over the importance of sensitive tree management**

- **Engage with the club landlords at Holdshott Farm over options to reduce pollution pressures. This action should sit with the EA and Consultative and not involve the tenants.**
- **Plan future tree works to encourage some diversity in the tree canopy and use arising materials to help create improved winter cover for juvenile fish.**
- **If not already doing so, regular monitoring of water quality by taking simple invertebrate surveys is recommended. Information and training is available via the River Fly Partnership. Sites both up and downstream of Holdshott farm should be checked several times a year.**
- **If not already doing so, move to sterile triploid brown trout for restocking and experiment with stock densities and timing. Often stocking with fewer fish but perhaps more regularly will result in improved catch returns. Collate rod catch data and where possible try to monitor the number of wild trout verses stocked fish that are being captured each season. Imposing a fishery rule of mandatory catch and release for all wild fish is recommended.**
- **It is possible that this fishery could sustain a purely wild trout fishery with no stocking if spawning production and fry survival were to be boosted via a programme of habitat improvement work. A River Habitat Workshop specifically aimed at improving trout production would seem like a good option and may well attract interest from other Loddon Valley trout groups.**

Note: All work within 8m of the top of the bank will require a consultation with the EA and may require a formal written Flood Defence Consent prior to any work being carried out.

Acknowledgement

The WTT would like to thank the Environment Agency for supporting the advisory and practical visit programme in England, through a partnership funded using rod licence income.

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