Advisory Visit for Stockton Angling Limited

River Tees - Winston

Date 23/01/12

1.0 Introduction

This report is the output of a site visit undertaken by Gareth Pedley of the Wild Trout Trust to the River Tees on 23 January 2012. Comments in this report are based on observations on the day of the site visit and discussions with F. T. Ayre, S. R. Targett, J. Steele, P. C. Dallager, J. Todd and G. Cruickshank of Stockton Angling Limited (SAL).

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. Location coordinates are given using the Ordnance Survey National Grid Reference system.

2.0 Catchment / Fishery Overview

SAL control the fishing on around sixteen kilometres of the middle River Tees, stretching from Ovington (NZ1301614827) on the RHB down to a point below Gainford (NZ1807616339). The fishing on the LHB is more restricted, but for the most part runs from just downstream of Ovington (NZ1337215232) to the confluence with Alwent Beck (NZ1597717449). (Grid references are approximated from SAL map appendix 1).

The club currently has around 350 members with access to this section. Trout stocking was historically undertaken, but nothing has been stocked recently. The bag limit for the river was set at six fish, only two of which could be trout.

Although situated mid-catchment, the river in this area displays characteristics of an upland watercourse, with a relatively steep gradient. There was anecdotal evidence that sediment loading in the river was greatly increased recently when the reservoirs in the upper catchment were drained for maintenance; and that this was followed by increased algal growth on the river bed.

The primary species in this section of the river are sea and brown trout (*Salmo trutta*), grayling (*Thymallus thymallus*), salmon (*Salmo salar*); with other species including chub (*Leuciscus cephalus*), dace (*Leuciscus leuciscus*) and pike (*Esox lucius*) occasionally caught.

The Water Framework Directive Waterbody that this section falls within is the - River Tees from River Greta to River Skerne (waterbody identification No GB103025072190). The waterbody is classed as heavily modified due to the presence of major barriers and reservoirs on the system but has been assessed as good for fish and invertebrates, and good or high for all other parameters. This means that, for the parameters assessed, the data indicate conditions that are as good as would be expected. Invertebrate data collected by the club would support this, with a good range present, including some of the more sensitive species.

The small tributary that enters the Tees on the LHB downstream of Winston, Alwent Beck, is classed as poor for overall biological quality, and poor for fish.

3.0 Habitat Assessment

Habitat was assessed via a walkover of the river between Winston Bridge (NZ1424616273) and West Tees Bridge (NZ1575717322) as being representative of SAL waters on the Tees.

The channel section walked generally comprised long glides with deeper gullies, interspersed with fast riffles and the occasional pool (Picture 1). During the visit the river was suspected to be up by around 30cm, but it was apparent that the river in this area is a dynamic and powerful system even at lower flows. Correspondingly the substrate is generally large cobbles and boulders, with a lesser degree of gravel and fine sediments. This may be influenced to some extent by several reservoirs in the catchment which can act as a sink for gravel. This issue is currently being looked into by the EA and Tees Rivers Trust, and projects to reintroduce gravel are underway.

While this means that smaller spawning substrate for grayling and trout (5-60mm particle diameter) was less abundant in the section, some areas were present. The issue is also likely to be offset somewhat by the resulting higher fry, parr and adult trout habitat, increasing survival at later life stages.

As is common for large rivers of this type, spawning in the main channel is likely to be good for salmon and larger sea trout, with smaller trout and

grayling relying on pockets of smaller gravel, slower pools, and tributaries for spawning.

Picture 1. Fast riffle, typical of this reach, with good tree cover (LHB), flowing into a pool (NZ1597817462).

It was evident that the river does receive and transport high levels of sand, presumably when in spate, as large deposits could be seen in sheltered areas along the bank. This could be an indication of erosion upstream, but in general the substrate was relatively clear of fine particles, due to the rapid flow, and invertebrate kick sampling data indicate a healthy and diverse community, including species sensitive to siltation. Water colour on the day was a peaty brown, typical of an upland river, running off moorland, but did not appear to be carrying much sediment.

Most of the section walked appeared to support healthy growth of vegetation and self set trees along the banks (Picture 2), which are beneficial on two counts. First of all, the trailing vegetation provides good cover from predation, and shelter for emerging fry. Secondly, healthy vegetation that

includes grasses, herbaceous plants and trees, also provides physical protection to the bank and consolidation through the root structure.

Picture 2. Self set willow (*Salix sp.)* which will provide cover and shelter, along with bank protection.

The only area viewed, where marginal cover was considered to be particularly lacking, was around the anglers' hut. In this area livestock are descending the bank from the field above, eating the vegetation and causing disturbance (poaching) to the bank. Due to the shading by deciduous wood in this area vegetation is already limited and grazing is exacerbating this, resulting in additional areas of bare ground and erosion (Picture 3). It is recommended that the landowner/tenant in this area is approached to consider excluding livestock. The loss of grazing is likely to be minimal, so as long as an alternative water source is available, this may be achievable.

Picture 3. Grazed area around the anglers' hut (NZ1429416409). Growth of vegetation here will always be limited by tree shading, so additional grazing pressure should be prevented if possible.

In most areas there was a healthy level of tree cover, which is vital if fish populations are to be optimised. The branches provide shade and protection from predators, as well as a valuable source of terrestrial insects and refuge for emerging aquatic species. The lower they are to the water the better and where trailing in the water they provide the additional benefit of structure and flow disruption, which increases the quality of fish lies (Picture 4).

Picture 4. Low level cover provided by sycamore (*Acer pseudoplatanus*) branches that will really improve the habitat when in leaf. Also note the trailing and partially submerged willow in the background. This provides similar shade and cover, but in addition provides structure in which fish can hide from predators, and shelter from flow.

One area had been subject to pruning and this is something that should be avoided. It is often argued that low and trailing branch cover should be removed or pruned to improve fishing, as there is no point in retaining structure that renders lies unfishable. This is not the case: if the cover is so dense that a lie cannot be fished (which is rarely the case anyway), fish will invariably have to move out from that location at some point to feed. They may spend time in the cover, and will certainly return there when disturbed, but will move out from there at times to feed. It is better to have the fish there and available some of the time than absent from the area due to a lack of cover, as would happen if it is removed.

For this reason it is recommended that rather than removing low branches they should be retained, and where absent, increased via coppicing the occasional tree, or stem, just above water level. The process of coppicing

encourages re-growth at a lower level (see example in appendix 2). It also potentially prolongs the life of the tree by taking weight out of the canopy and prevents the tree getting top heavy.

The bottom 100-m section of the Alwent beck was also viewed on the day, which revealed the Beck to have significant potential as a spawning tributary and trout habitat (Picture 5).

Picture 5. The Alwent Beck has good alder (*Alnus glutinosa*) growth along the banks in much of the area viewed, providing good branch and root cover.

It wasn't however in optimal condition, as suggested by the unfavourable WFD status. A quick assessment of the Beck showed signs of excessive siltation and possible erosion issues upstream. Some of the substrate of the Beck was of a suitable size and volume for spawning (Picture 6). For these reasons it is strongly recommended that the siltation issues are investigated, as the Beck could be a valuable spawning area if improved. The Tees Rivers Trust may be able to assist with this.

Once the sources of excess sediment are prevented, habitat on the Beck could be further enhanced with the installation of large woody debris. This would provide cover and increase scouring and sorting of the bed, leaving cleaner, better quality spawning substrate.

Picture 6. Potential trout and grayling spawning substrate on the Alwent Beck. Sedimentation issues need addressing for the potential to be realised.

4.0 Summary

In summary, SAL waters are generally considered to provide a high quality of habitat for trout, salmon and grayling, with ample available to support healthy wild fish stocks. The river is large and powerful, producing the ideal situation for a minimal management approach. In effect the river will look after itself and the more natural that it is allowed to be, the better. The habitat naturally provided is very well suited to our native brown trout and grayling, which will thrive there with minimal interference.

In contrast, stocked fish are likely to be poorly adapted for survival and reproduction in the Tees. They could also have a negative impact on native stocks via competition for food and space. Fertile domesticated trout would have the further potential to harm the wild gene pool in a similar way that escapes from salmon farms are impacting wild salmon stocks.

5.0 Recommendations

The river appears to be in good condition and very capable of producing and supporting wild fish. It is therefore recommended that SAL should continue with the current policy of no stocking, thereby minimising the level of impact on fish stocks.

It may be beneficial to introduce an angler log book scheme so that the numbers of fish caught per day are recorded, and the proportion of fish returned better understood. Some books may be available through the local EA office, via paul.frear@environment-agency.gov.uk.

Revision to the club rules regarding bag limits should be investigated in light of recent changes to legislation. (http://www.environment-agency.gov.uk/homeandleisure/recreation/fishing/119393.aspx)

Promotion of catch and release amongst members is advised for all species. This need not be mandatory but it is worth noting that by practising catch and release anglers will be preserving valuable, wild spawning stock, and assisting natural trout production. There is also the additional benefit to angling that larger fish caught must possess the characteristics necessary to survive well in the wild. If these fish are returned they have a good chance of attaining even larger size and further enhancing angling opportunities.

It is advised that the possibility of reinstating fencing to exclude livestock access to the river bank in the area around the fishing hut is investigated, as this would increase bank protection and benefit marginal habitat.

Sedimentation issues on the Alwent Beck should be investigated, as this could serve as a valuable spawning and nursery tributary. The Tees Rivers Trust could be well placed to assist with this.

It is also advised that the current invertebrate monitoring undertaken by the club is continued. This is a very beneficial task that not only helps to monitor the diversity of species present and subtle changes to the ecology of the river, but also has the potential to highlight pollution events that can be missed by other monitoring methods.

6.0 Acknowledgement

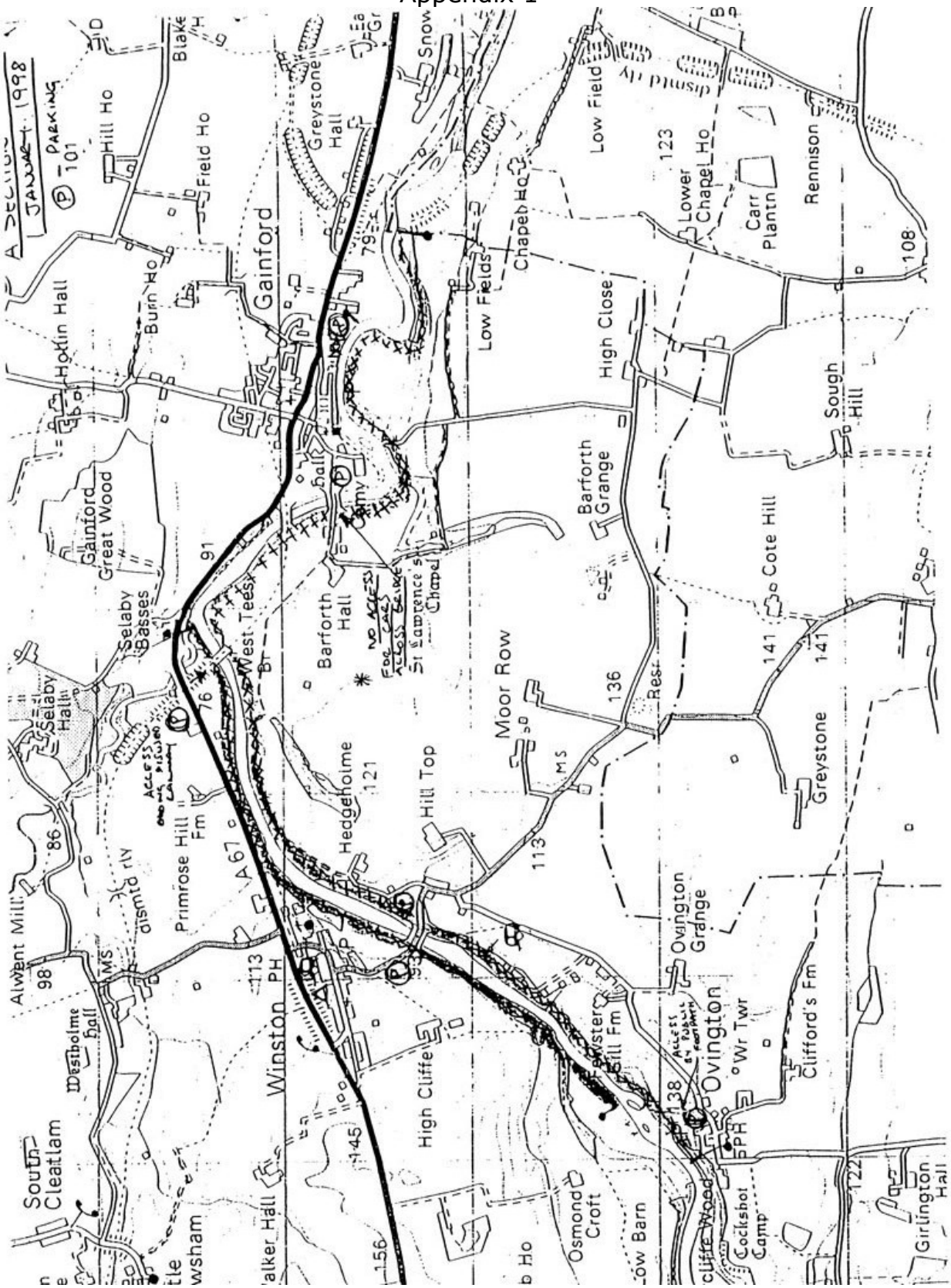
The Wild Trout Trust would like to thank the Environment Agency for the support which made this visit possible.

7.0 Disclaimer

This report is produced for guidance only and should not be used as a substitute for full professional advice. 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.

It is a legal requirement that all the works to the river require written Environment Agency (EA) consent prior to undertaking work, either in-channel or within 8 metres of the bank (in some EA areas this distance may be 5 metres).

Appendix 1


Gainford
Winston
Ovington
Barforth Hall
Barforth Grange
Moor Row
Hill Top
High Cliffe
Hedgeholme
Selaby Hall
Selaby Basses
Gainford Great Wood
Primrose Hill Fm
Alwent Mill
Westholme Hall
South Cleatlam
Hoxtin Hall
Burn Ho
Hill Ho
Field Ho
Greystone Hall
Snow
Blake
Low Fields
Chapel Ho
Low Field
High Close
Lower Chapel Ho
Carr Plantn
Rennison
Sough Hill
Cote Hill
Greystone
Ovington Grange
Clifford's Fm
Wr Twr
Cockshot Camp
Girlington Hall
Osmond Croft
Low Barn
Walker Hall
West Tees
St Lawrence's Chapel
A 67
A DECISION
JANUARY 1998
P - PARKING

Appendix 2

Coppicing trees produces bushy re-growth which creates excellent low cover over the water. This method should be used sparingly, ideally only on one or two trees in a section. It is important to protect this growth from livestock in areas where grazing occurs. (bottom picture represents 4 years re-growth)