Advisory Visit undertaken by Gareth Pedley on behalf of the Wild Trout Trust for Sowerby Angling Society

Cod Beck

April 25th 2013

1.0 Introduction

This report is the output of a site visit undertaken by Gareth Pedley of the Wild Trout Trust to the Cod Beck, North Yorkshire, on 25th April 2013. Comments in this report are based on observations on the day of the site visit and discussions with Nigel Pringle, Edward Kendall, Jason Wright and Edward Twiddy. Discussions with Keith Norton (Environment Agency Fisheries Officer) also shed light on potential issues of flood conveyance in the area.

Normal convention is applied throughout the report with respect to bank identification, i.e. the banks are designated left hand bank (LB) or right hand bank (RB) whilst looking downstream. Location coordinates are given using the Ordnance Survey National Grid Reference system.

The section of Cod Beck inspected lies between Thirsk (SE4312981903) and a point approximately 3.5Km downstream (SE4323678819).

2.0 Catchment / Fishery Overview

Cod beck is a tributary of the River Swale, rising on the edge of the North Yorkshire Moors National Park before flowing in a general southerly direction to meet the Swale downstream of Asenby. Reservoirs in the upper reaches of the catchment impound the Beck and tributaries; however, discussions with Keith Norton revealed that these may be decommissioned in the near future. This being the case, it would be beneficial to consult with both the local Environment Agency (EA) and reservoir owners (presumably Yorkshire Water) to discuss options for reinstating a natural flow regime to the Beck.

The predominant geology of the catchment is sandstones, siltstones, mudstones and some limestone, with superficial deposits of till (glacial clay), silt, sand and gravels overlying. As a consequence, the topsoil, in this area generally comprises a high proportion of sand, creating light friable soils, susceptible to erosion. This combination of relatively permeable bedrock, erodible sandstones, and higher alkalinity limestone are likely to create a neutral-alkaline pH, supporting a relatively productive watercourse.

Due to the productive nature of soils in the catchment, much of the surrounding land use is arable farming. A brief overview of the catchment on Google maps revealed that although many areas of the Beck and tributaries have some degree of vegetated buffer strip, which should help reduce the volume of sediment directly entering, however, the number of surface land drains within the catchment is significant and likely to be a major source of sedimentation.

The section of Cod Beck walked lies within a waterbody classed as 'good' for fish, and 'good' or 'high' for all other parameters, barring hydrology and hydromorphology, under the Water Framework Directive (WFD) classification system. This suggests that electrofishing results have revealed the expected species to be present at appropriate densities. However, the hydrology and hydromorphology of the waterbody are classed as not high, which is likely to reflect the effects on flow regime of the reservoir impoundments in the upper reaches, and previous channel maintenance (dredging and straightening) that have been undertaken in many areas.

As is common with lowland rivers throughout England, dredging was undertaken to improve land drainage and allow cultivation of the fertile land along the river floodplains; however, a past scheme to turn a long reach of the beck into a canal resulted in further impact, leaving an over-wide channel, and removing valuable bed materials. In addition, modification of the channel course, removing many of the meanders, has now also left the watercourse significantly less sinuous than it would naturally be, with less depth and flow diversity than would naturally occur.

3.0 Fishery Overview

Sowerby AS (Angling Association) formed in 1969 to provide affordable fishing, specifically for residents of Sowerby, but the club now accepts membership from further afield. Society waters extend for approximately 7.25 Km, providing angling for predominantly trout *Salmo trutta* and grayling *Thymallus thymallus*, but coarse fish species (including chub *Leuciscus cephalus* and dace *Leuciscus leuciscus*) are also present, along with many other non-angling species, including river lamprey *Lampetra fluviatilis.*

Historically, high numbers of trout were stocked to the Beck (500-1000/year); however, the value of this practice has been called into question, with stocking now only undertaken every 2-3 years. As such, only 150 triploid fish were stocked last year. The general feeling of the club is that time and money would be better spent on enhancing habitat and promoting wild trout stocks, rather than introducing stocked fish which are poorly suited to the environment of the Beck and are likely to emigrate rapidly, particularly with high water events.

4.0 Habitat Assessment

The walkover of the Beck was undertaken in two sections, and correspondingly the habitat assessment will be presented in two sections:

- Upstream of the A168 (SE43578066 - SE4312981903)
- Downstream of the A168 (SE43578066 - SE4323678819)

4.1 Upstream of the A168

Heading upstream from the A168 the impacts of past modifications are clear to see. The channel is straight for long sections and greatly over-wide for the volume of flow it will receive in most conditions. Many of the vital, natural in-channel characteristics (pools, riffles and bars) are significantly degraded or removed (Figure 1).

The lack of meanders is inhibiting natural erosional and depositional processes, reducing the amount of bed scour (normally associated with the outside of bends where pools would develop), and the deposition associated with the slower inside of bends (where natural channel narrowing and sediment storage would occur). The result is that much of the sediment and bed materials from upstream are transported straight through the straight sections in high flows, only being deposited in deeper pool areas, leading to shallowing and leaving a more uniform, featureless bed. In low flows, the over-wide nature of the channel facilitates significant deposition of fine sediment and nutrients onto the bed, smothering and compacting gravels and triggering excess algal growth.

Figure 1. Straightened and dredged section of river of poor habitat quality.

Put simply, straightening the Beck's course has reduced its ability to naturally maintain pools and riffles, or narrow its channel naturally, greatly reducing habitat diversity. For these reasons, it was not surprising to see a lack suitable salmonid spawning substrate throughout the section, and where gravels were of a suitable size (10-50mm) they were heavily laden with silt and algae.

Numerous lamprey spawning sites were, however, observed throughout Sowerby AS waters (Figure 2), which was an encouraging sign and demonstrates some degree of healthy biodiversity. Their activity also demonstrated the presence of potential salmonid spawning substrate in some areas, if it could be enhanced. Protection of lamprey spawning sites is also important, and it should be ensured that any habitat enhancement techniques employed do not detract from the habitat suitability for lamprey, and the techniques recommended take this into account.

Figure 2. Lamprey spawning, revealing substrate well within the requirements of salmonids if it could be cleaned and sorted.

The high sedimentation and issues of algal growth observed are likely to stem from two major sources, but without a more detailed inspection of the catchment it is hard to ascribe the definitive cause. Rural Diffuse Partnership projects, as run by the EA in many other areas of the country, would certainly be beneficial, and it may be worth investigating whether the local EA has plans for any projects of this type on the catchment.

Although difficult to ascribe definitively, it is probable that a large portion of the issue with sediment and algae stems from a common source, with the surface runoff from nearby arable fields and field drains transporting, not only the fine alluvial soils, but also the nutrients and fertilisers put onto them. Tackling this large-scale issue is likely to be outside the scope of Sowerby AS, but a shorter-term solution may be to employ management practices to facilitate channel narrowing to increase bed scour and pool creation, assisting the Beck to better maintain its natural features.

Creation of in-channel structure would be greatly beneficial for this, and the installation of LWD (tree kickers etc.) can be utilised to slow flows and increase sediment deposition, similar to the natural LWD example in figure 3. In more heavily impacted sections (particularly where long and straight reaches exist), more formal flow deflectors may also be beneficial. These are not an appropriate long term solution, but could be used to kick start the process, particularly if located on gravel bed features where scouring would facilitate pool development, cleaning and sorting gravel lifts at the tail.

Figure 3. Some of the better quality habitat observed. Woody debris in the foreground is encouraging deposition and creating natural channel narrowing, which in turn has scoured a deeper pool in the central channel. Bank side trees provide good cover from low branches and roots.

Where structures are utilised to encourage marginal deposition, it may be possible to further assist consolidation of those features to create permanent channel narrowing. Methods such as formalising a brash faggot toe to the intended bank line and planting trees, and/or wiring brash over the area will also help it become consolidated, and can be used in conjunction with other structures; the end goal of these techniques being to retain the structure and depositional features *in situ* long enough that they become vegetated and stable.

Creation of depositional areas will also increase the Beck's capacity for sediment storage in beneficial areas, reducing the volumes transported downstream, and potentially reducing the issues with sedimentation and algae. More stable sediment deposits would also benefit the lamprey, providing better quality, undisturbed habitat for ammocetes (juvenile stage), which is vital, as they spend much of their early life within silt.

In addition to the issues of channel modification, a lack of low-level aerial, and trailing cover habitat, and scarcity of large wood debris was also noted in many areas (Figure 4). This is likely down to two issues, historic channel maintenance by the Environment Agency (EA), to reduce the potential for blockages and improve flood conveyance, or pruning by anglers.

While channel maintenance is no longer undertaken by the EA in the majority of this section, a legacy of low branch removal and lifted tree canopies may still remain, requiring some rectification. Pruning by anglers is likely to be a more recent and ongoing issue. This work is often undertaken in a well meaning, but misguided attempt to improve the fishing, by removing trailing and fallen trees/branches to aid an easy cast; however, contrary to improving fishing, removal of these features is ultimately highly detrimental. It reduces the number of fish that the river can support, by removing vital structure that is important for both cover and flow diversity. As such, it is strongly recommended that all pruning of low level and trailing tree branches on club waters ceases immediately and that regeneration and installation of this type of habitat is promoted.

Figure 4. An overly-straight and long pool, with little depth or flow variability. Also note the lack of low-level and trailing cover.

To enhance habitat in these areas the ideal solution is increasing the availability of low-level and in-channel structures by selective coppicing of suitable species (willows *Salix spp*, alder *Alnus glutinosa*, hazel *Corylus avellana*, elm *Ulmus minor* and sycamore *Acer pseudoplantus*), along with laying (as you would lay hawthorn for a hedge) willow, hazel and elm into the channel along the river bank (Figure 5).

Detail of the techniques described can be found in the recommendations section, and on the WTT website and in WTT habitat manuals (http://www.wildtrout.org/content/wtt-publications).

Figure 5. Good juvenile habitat provided by a shallow riffle with trailing and emergent vegetation in the margins. This habitat could be further enhanced by laying the willow down along the toe of the bank, as demonstrated in red. The same technique would be very beneficial in many areas where willow, hazel and elm are present along the bank.

4.2 Downstream of the A168

Habitat downstream of the A168 was, in many areas, of a higher quality for adult trout than that above, with less fewer signs of channel straightening and a corresponding increase in availability of deeper pool habitat. This was particularly evident towards the downstream end, where some tight meander loops were present. Where flow velocities increased, some areas capable of supporting trout spawning were present, although much of this habitat was significantly degraded by sedimentation.

Past dredging activity was still very apparent, with the channel heavily incised in many areas, but the more open nature of the banks along this section has facilitated some good growth of willow and alder, which now provide cover and flow diversity. The presence of these self-set willow shrubs and trees along the banks has also facilitated significant natural accretion of sediment (Figure 6), in the same way described previously to assist channel narrowing.

Figure 6. Significant depositions of sediment on the far bank, showing the high volumes present within the watercourse and the potential for in-channel structure to baffle and slow flows, assisting deposition.

Many dead alder were observed within this section, which could signify the presence of alder disease *Phytophthora alni*, a parasitic fungus which attacks alder and can lead to death of the tree. Some success in prolonging the life of infected trees has been reported by coppicing, which appears to be most effective if the disease is caught relatively early. Dead and dying trees are probably better left *in situ* as valuable habitat for birds and invertebrates, and as a future source of LWD.

Several long, straight areas of channel were observed in this section (Figure 7), all of which could be enhanced in the short-term by increasing in-channel structure, particularly paired upstream deflectors. In addition to deflectors, planting of willow along the average water line would increase cover and provide living structure within the bank that will help to provide additional longer-term benefits to the flow deflectors. In particular, planting around the base of the deflectors, and slightly up and downstream will help capitalise upon any marginal deposition the deflectors encourage. They can then be laid into the channel in future, to replace the deflectors, or coppiced to retain low branch cover as required. Planting of willow in all locations where a lack of cover exists would be beneficial, but particularly where exposed and eroding banks are present, as their roots will help bind the banks together and reduce erosion, as on the RB (left of shot) in figure 7.

Figure 7. Overly straight section where upstream flow deflectors could be employed to focus flows to the centre of the channel to scour deeper areas while cleaning and sorting gravels.

Aside from the ongoing sedimentation and algal issues, several other potentially significant issues were observed in this section. Two highly invasive non-native species, Japanese knotweed *Fallopia japonica* (Figure 8) and Himalayan balsam *Impatiens glandulifera* (Figure 9 & 10) were noted; both of which should be treated as a matter of urgency to prevent their spread as they will out-compete the native riverbank flora, leaving a lack of cover and significantly increase bank erosion. Presence of these species upstream may also be contributing to the significant sedimentation issues of the Beck.

Figure 8. Small stand of Japanese knotweed (NGR - SE4363180155), which should be treated as soon as possible to stop it becoming established and spreading.


Figure 9. Newly sprouted Himalayan balsam plant.

Figure 10. Large area of bank, largely devoid of vegetation almost certainly due to previous out-competition from of Himalayan balsam (NGR - SE4368279935).

Two notable discharges are also present within this section, both in the same location, but likely of different significance. The most noticeable of these issues was a piped ochreous discharge (Figure 11). Without detailed chemical analysis it is not possible to ascertain the toxicity of this, and although metalliferous discharges can have a negative impact upon pH, increased sedimentation, deposition of metals, and dissolved oxygen (through oxidisation of the ferrous minerals), the volume of this discharge was very low and appeared to have a minimal impact within the Beck; unlike that of many higher volume discharges on other watercourses, where the impact can be observed for several tens of meters.

Very closely upstream, a sewage discharge did appear to be of potential concern (Figure 12). The noticeable grey coloured water and grey sewage fungus on the outfall cascade suggests a high nutrient content, and should be reported to the EA.

Figure 11. Metalliferous (probably hydrated iron oxides) discharge assumed to be from an old gravel working (NGR - SE4360780276).

Figure 12. Grey water discharge from the sewage works (possibly elevated in nitrates and phosphates, however, little evidence of detergent contamination). This should be reported to the EA as a possible chronic pollution (NGR - SE4361180294.

Several small weirs were also observed throughout the walkover (Figure 13). Most of these appeared to be past attempts to increase water depth and improve the conditions for angling on the Beck. In fact, weirs actually create an impoundment to flows, increasing deposition and ultimately lead to shallowing and habitat degradation. It is far better to employ the techniques described earlier to mimic and facilitate the natural processes within a watercourse, for example narrowing and promoting bed-scour, rather than impounding channels. Driving the river-bed down creates self-cleaning pools and preserves riffle habitat. In contrast, holding water up to create pools causes sedimentation, stagnation and drowns out valuable riffle habitat. With this in mind, it is advised that wherever weirs are present, sections of the weir are removed down to bed level, increasing scour in the focus areas created and improving hydraulic conditions.

Figure 13. Small weir downstream of the A168 (NGR - SE4367880518). Removal of 400-500mm of width in the central area down to bed level, on this and other similar weirs would be very beneficial.

5.0 Summary of Recommendations

The major channel modification that have been undertaken on the Cod Beck and subsequent impacts through further channel incision and erosion have had a significant impact upon its form and function. To counter these impacts there are several courses of action available. At the most costly and high impact end of the scale, full reinstatement of a more sinuous channel with natural channel dimensions through bank re-profiling could be undertaken. This would be the optimal solution, restoring the Beck to something more closely resembling its natural state, where natural processes would scour and maintain a pool and riffle sequence.

In reality, although this would be the optimal solution it is likely to be outside the scope of a small angling club. However the simple options contained within this section, involving tree management and the implementation of in-channel structures will restore some of the natural riverine processes and are well within the scope of Sowerby AS.

5.1 Channel narrowing

In many of the over-wide, straight areas a new bank line could be created with living willow or hazel faggots. These would be staked into the bed to create a toe. The area behind the new bank line would then be backfilled with brash, to create a mattress, wired down to the bed with multiple stakes to prevent wash out (Figures 14 & 15). This method increases sediment deposition within the brash by baffling and slowing the flow over it. The example in Figure 14 also employs the use of hessian geotextiles to encourage deposition and protect the backfilled area until it becomes colonised by vegetation, although this is unlikely to be necessary.

The faggots used for this should be relatively small diameter (c.300-400mm) and brash backfill kept to a low level, particularly towards the centre of the channel to lower the amount of drag in high flows, and reduce chances of washout. The height of the brash backfill can be graded, being higher at the bank than at the faggot toe; however, it is recommended that none of the brash stands more than 400mm above the bed, to maintain channel capacity and prevent unwanted scouring and reduce the loss of channel capacity at higher flows.

Figure 14. Bank creation using willow faggots and brash backfill. This example also includes the use of hessian or coir.

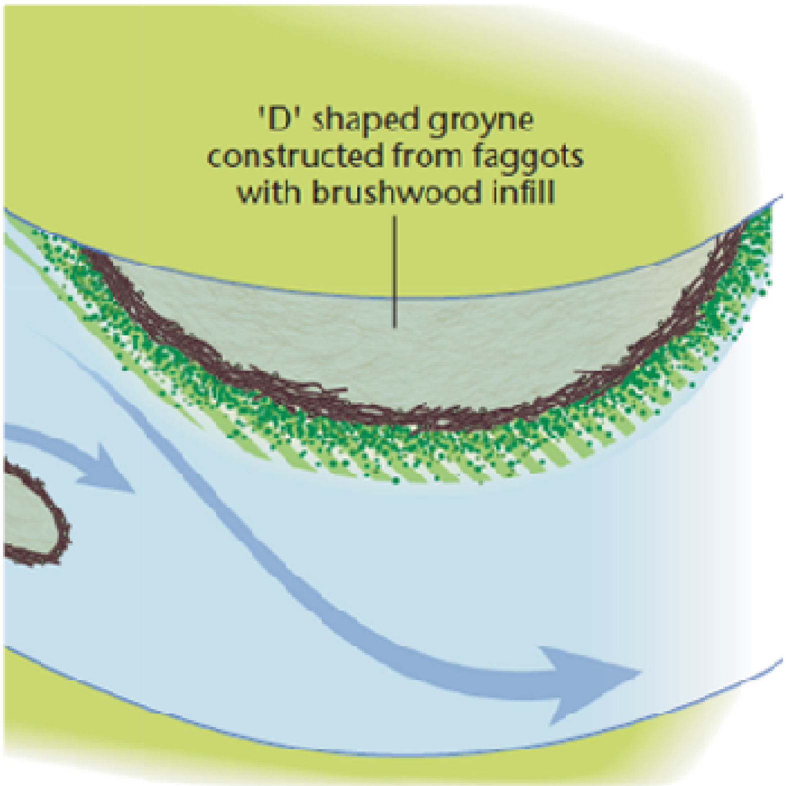

Figure 15. Faggot toe to create a new bank line, backfilled with brash.

5.2 Large Woody Debris

Introducing LWD and structures like tree kickers (large branches, or whole trees anchored in place to produce cover and flow deflection) will concentrate flows to certain areas of the channel (usually towards the centre), scouring out deeper pool habitat while creating slacker areas within the margins where deposition will increase (Figure 16). Tree kickers can be easily secured in place with cables (Figure 17).

Figure 16. Note the narrowing effect through significant gravel and sediment accumulation (centre and right of shot) in the sheltered area downstream of the tree kicker.

Figure 17. Cabling for a tree kicker.

5.3 Flow deflectors

More dynamic flow deflector methods can also be employed, as demonstrated in Figure 18; however, it is recommended that these methods are undertaken by experienced personnel, or under guidance, as they have a greater potential for unintended consequences if installed incorrectly, or in the wrong areas. Restricting their use to straight river sections, and only employing paired, upstream deflectors, where scour will be restricted to the centre of the channel will help reduce the potential for issues.

If used, deflectors should be well keyed into the banks, located flush with the bed. The bank-ward ends should be fixed higher than the central ends to encourage flows into the channel, rather than around the bank end of the deflectors.

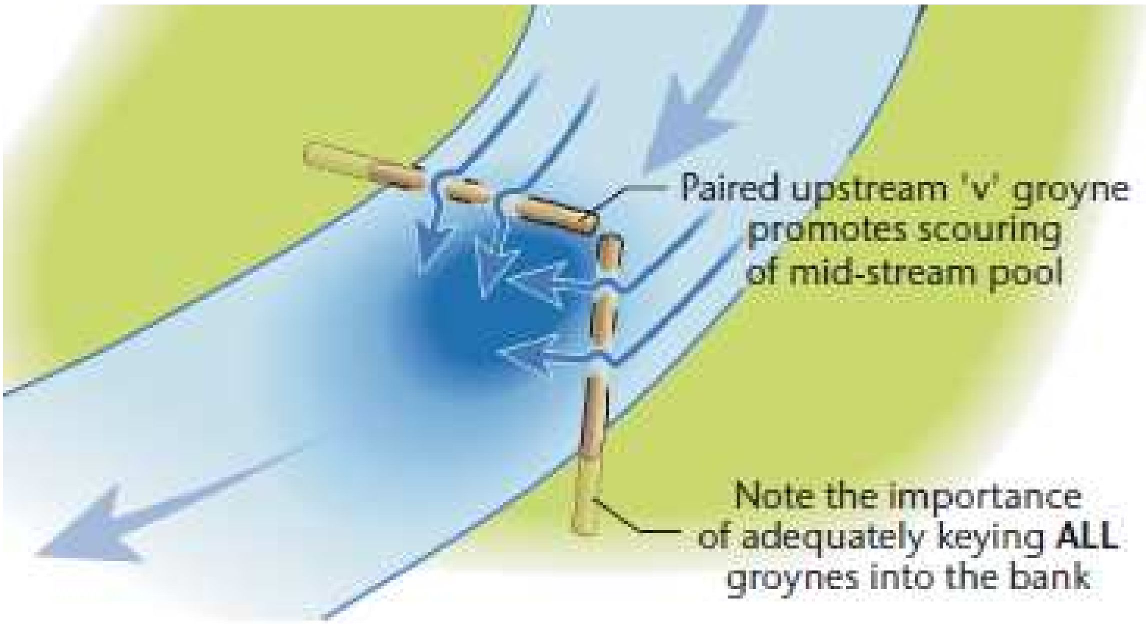

Figure 18. Options for increasing scour and deposition with flow deflectors.

Before any work is undertaken to a watercourse, or within 8 metres of the bank, it is important to first contact your local Environment Agency Development Control team (possibly now called Partnerships and Strategic Overview). The EA will be able to inform you whether there is a legal requirement for Flood Defence Consent, and supply you with any necessary forms, which they or the WTT will be able to assist you in completing.

The Flood Defence Consent process allows the Environment Agency to assess and manage the potential flood risk and biodiversity implications of any work.

5.4 Tree Planting

Tree planting is recommended throughout both sections of the Beck, wherever there is a lack of low cover or issues with bank erosion. This method will be particularly beneficial within the upper end of the upper section and throughout the lower section. Over time these trees will begin to consolidate the banks, while also providing some of the beneficial scour and deposition benefits described for tree kickers.

Tree planting can be used to provide important cover around the riffles and discrete pools that already exist, but also, planting discrete clusters along the straight sections to redirect flows will also greatly enhance the available habitat. As such, it is often beneficial to plant these clusters alternately along each bank, with gaps between them.

The quickest and easiest way to plant willow is by pushing short sections of willow whip into the ground around the water line (where it will get plenty of water). This can be undertaken at any time of the year, but will have the greatest success if undertaken within the dormant season, shortly before spring growth begins (ideally late Jan-early March). Whips should be planted into soft, wet earth/sediment so that there is a greater length within the ground than out of it, to minimise the distance that water has to be transported up the stem; 300-400mm of whip protruding from the ground is sufficient.

Willow can also be planted as living willow bundles, which consist of a several willow branches tied together into a faggot. These can then be staked along the waterline, ideally with the majority of the bundle submerges in most flows. If they take, this method can rapidly increase the availability of low, dense canopy over the water.

For willow work is preferable to source willow locally, from adjacent areas of the bank. This ensures that it is suited to the conditions and helps to avoid potential issues with transportation of non-native species. There are numerous willow species found on river banks, but the smaller shrub types are usually the best, as they remain small and low to the water and require less maintenance.

5.5 Tree Laying

Where trees are already established along the bank side habitat improvements can often be attained through laying some of the branches down into the watercourse to increase low cover and structure within the channel. This method is generally limited to species that can be easily manipulated without snapping (e.g. willow, elm, hazel, hawthorn and small alder). For this reason, small to medium shrubs tend to work best, although quite large willow can be successfully laid.

The process involves cutting part way through the stem/trunk (a bit at a time) until it can be forced over into the channel (Figures 24 & 25). Care should be taken to limit the depth of the cut to that which is required to bend the limb over, to retain maximum strength and health.

Figure 24. Hinged willow.

Figure 25. Hinged hazel.

5.6 Coppicing

In areas where trees are present, but the canopy is well above the water level (over 1m), particularly in sections where anglers have pruned the low branches, coppicing can be undertaken to encourage low level re-growth, and in many cases rejuvenate the tree. This treatment should be undertaken sparingly, as tree canopies provide habitat for many other species and also provide valuable shade. Only coppicing 1 in every 2-5 trees, depending upon the numbers of trees present, and coppicing on a rotational basis will help to retain a good range of tree growth, all at different sizes and stages of re-growth. Where possible, whenever undertaking coppicing, existing low cover should be retained.

Care should also be taken to ensure that tree work is undertaken at times that avoid the bird nesting season, as disturbance of their nests can constitute an offence under the Wildlife and Countryside Act.

5.7 Modification of weirs

Although there are no major barriers within the Beck reaches walked, it is strongly recommended that the central sections of all weirs on the watercourse be reduced to bed level. This will remove the impact of flow impoundment upstream, allowing more natural flow diversity and increasing beneficial bed scouring.

5.8 Discharges

The ochreous iron oxide discharge is not expected to be a significant issue to the watercourse, but the discharge from the sewage works should be reported to the EA as a potential issue.

5.9 Protection of spawning fish

The numerous lamprey spawning sites encountered on the day of the advisory visit highlights the importance of this area of the Beck for lamprey. As an important native species it is therefore important to ensure that angling activity does not negatively impact upon the lamprey. With this in mind it is recommended that all Sowerby AS members are advised to avoid walking on lamprey redds if fishing the river in spring (April/May), in the same way they would avoid salmonid redds if fishing outside of the trout season. The lamprey redds can be easily identified as areas of clean gravel, with aggregations of similar sized larger gravels, usually covering an area of c.300-500mm dia.

5.10 Non-native invasive species

It is strongly advised that stands of Himalayan balsam are searched for throughout the season and locations noted as they are identified. Once located, several methods can be employed to tackle the issue, but for them to be effective they should be undertaken before the plant flowers.

The simplest method is to organise working parties to undertake periodic balsam pulling events, which should occur before the plants have flowered. Pulled balsam should then be composted well back from the high water line. Alternatively, if a strimmer is available, this can be a useful tool for tackling larger areas of balsam, but may need undertaking several times in a year. If a strimmer is used, it is important to hit the plant below the 1st node to prevent re-growth. NB. It is very important not to strim Japanese knotweed, as this will actually spread the plants.

The other method is the use of the herbicide glyphosate, which is also the only effective method to tackle Japanese knotweed; however, its use by watercourses requires consent from the EA (more information on this can be found on the EA website).

5.11 Stocking

Although much of the spawning habitat on the Cod Beck is currently degraded, EA surveys appear to be picking up juvenile trout, otherwise the waterbody would be less than 'good' status for fish. With this in mind it is recommended that the current policy of significantly reduced stocking is continued, with a push towards complete cessation of stocking if enough support can be gained.

The benefits of this would be that funds that have been spent on stocking can be directed towards habitat enhancement and optimising the habitat that is present for the production of wild fish, free from the impacts of stocked fish (more information can be found on this subject at http://www.wildtrout.org/content/trout-stocking). An additional benefit is that the enhanced habitat is much more capable of supporting wild fish than stocked fish. Naturally spawned, wild fish will have an affinity to the reach, with a high percentage remaining to take advantage of the available habitat, rather than emigrating to other areas (as is a common issue with stocked fish). This should result in a higher population of retained fish.

6.0 Making it Happen

Further to the advice in this report, the Wild Trout Trust may be able to offer assistance with the following:

- WTT Project Proposal
    - The WTT can devise a more detailed project proposal report. This would usually detail the next steps to take and highlighting specific areas for work, with the report forming part of a land drainage consent application.

- WTT Practical Visit
    - Where clubs are in need of assistance to carry out the kind of improvements highlighted in an advisory visit report, there is the possibility of WTT staff conducting practical days for a club. This would consist of 1-3 days work with a WTT Conservation Officer teaming up with interested club members to demonstrate the habitat enhancement methods described above. Sowerby AS would be asked to contribute only to reasonable travel and subsistence costs of the WTT Officer.
- WTT Fundraising advice
    - Help and advice on how to raise funds for habitat improvement work can be found on the WTT website - http://www.wildtrout.org/content/project-funding
    - Or by contacting the WTT officer responsible for fundraising advice - Denise Ashton: dashton@wildtrout.org

We have also 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

7.0 Acknowledgement

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

8.0 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.