

WILD TROUT TRUST



Advisory Visit

River Welland at Marston Trussell, Northants

April 2024

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Key findings

- The opportunity for paleochannel reconnection should be fully explored, while recognising the potential impact of “cutting off” reaches of existing good habitat.
- The 10 weirs should be removed as they serve no current purpose. Ideally, weir removal should be done in combination with paleochannel reconnection and habitat restoration work to the entire reach.
- Channel incision was evident along the entire reach. It can only be properly addressed through the restoration of past riverbed profiles by the introduction of suitable bed substrates.
- As a consequence of channel incision and bank instability, the lower reach is suffering from bank slumping resulting in an over-supply of sediment.
- Tree planting is required to address bank instability. Fencing is needed to control the extent of riparian grazing by sheep.
- The reach contained some excellent woody material, representing valuable trout habitat.
- Part of the reach may have been subject to recent management, with woody material having been removed downstream of the farm access track. If that is the case, dialogue is needed with the person responsible to ensure that only the right type of management is undertaken.

1.0 Introduction

This report is the output of an Advisory Visit undertaken by Rob Mungovan of the Wild Trout Trust to the River Welland at Marston Trussell. The visit was requested by the Environment Agency with the local Natural Flood Management Advisor present. The visit was undertaken on 2nd April 2024. Comments in this report are based on observations on the day.

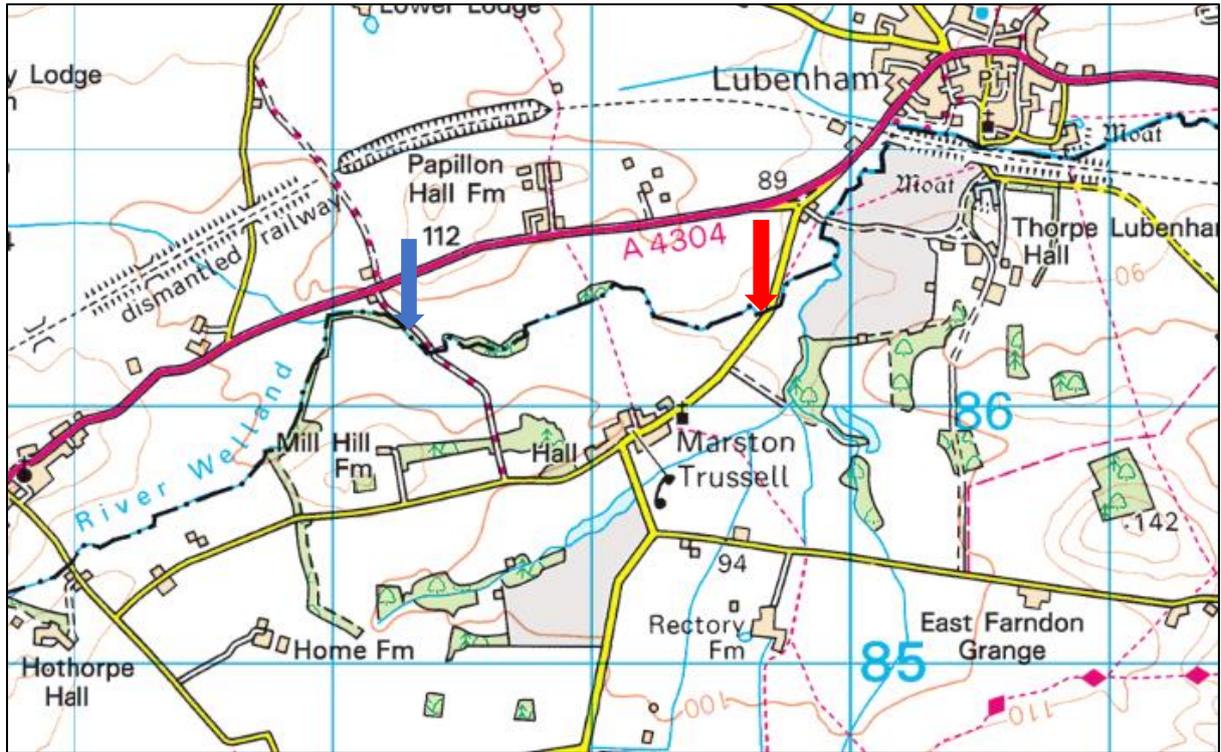
The reach of river is no longer used as a fishery, but the location is potentially a site for floodplain reconnection and river restoration.

Normal convention is applied throughout the report with respect to bank identification, i.e. the banks are designated left bank or right bank whilst looking downstream. Specific locations are identified using decimal latitude and longitude (e.g. 53.05466700, -1.903869500), which can be pasted straight into Google Maps to identify locations.

The report is written with observations described from upstream to downstream.

2.0 Catchment Overview

The Welland rises at Sibbertoft in Northamptonshire, then flows generally northeast to Market Harborough, Stamford and Spalding, to reach the Wash near Fosdyke. The reach visited flows through the Northamptonshire Vales National Character Area. The area is clay dominated but with outcrops limestone producing geologically varied soils. Scattered woodland still survives, with some important semi-natural and ancient woodlands. The river has carved relatively narrow valleys with wide plateaus. Land use in the vicinity of the Welland is mainly permanent pasture.



Map 1 – The location of the River Welland at Marston Trussell. Red arrow is downstream limit, blue arrow is upper limit of visit. © Ordnance Survey.

Classification Item	2019	2022
Ecological	Poor	Poor
Biological quality elements	Poor	Poor
Fish	Poor	Poor
Invertebrates	Good	Good
Macrophytes and Phylobenthos Combined	Moderate	Moderate
Macrophytes Sub Element	Moderate	Moderate
Physico-chemical quality elements	Moderate	Moderate
Acid Neutralising Capacity	High	High
Ammonia (Phys-Chem)	High	High
Biochemical Oxygen Demand (BOD)		Moderate
Dissolved oxygen	High	High
Phosphate	Poor	Poor
Temperature	High	High
pH	High	High
Hydromorphological Supporting Elements	Supports good	Supports good
Hydrological Regime	Supports good	Supports good
Morphology	Supports good	Supports good
Specific pollutants	High	High
Chromium (VI)	High	High
Copper	High	High
Iron	High	High
Manganese	High	High
Zinc	High	High
Chemical	Fail	Does not require assessment
Priority hazardous substances	Fail	Does not require assessment

Table 1 Data for [Welland - headwaters to conf Jordan | Catchment Data Explorer | Catchment Data Explorer](#)

	Waterbody Details
River	Welland
WFD Waterbody Name	Welland - headwaters to conf Jordan Water
Waterbody ID	GB105031045630
Management Catchment	Welland
River Basin District	Anglian
Current Ecological Quality	Poor
U/S Grid Ref Inspected	SP68256 86316
D/S Grid Ref Inspected	SP69672 86387
Length of River Inspected	2.3km

Table 2 - Water Framework Directive data for the Welland at Marston Trussell.

Table 1 summarises the Water Framework Directive (WFD) data for the Welland, which is classified as 'poor' ecological status. Parameters that make up the classification include 'good' for invertebrates, 'moderate' for macrophytes (aquatic plants) and 'high' for dissolved oxygen. Phosphate is listed as 'poor' which together with the 'poor' classification for oxygen is of concern, suggesting that the river may become dominated by its plant

growth in the height of summer making it prone to diurnal oxygen drops. Furthermore, lowland rivers tend to have higher water temperatures which hold less dissolved oxygen. Low summer oxygen levels may affect the distribution of wild brown trout in this reach.

Fish populations are classified as 'poor' which may be related to water quality issues as much as habitat.

3.0 Habitat Assessment

The river at Marston Trussell is relatively small, ranging from ~2m to ~4m wide. Turbidity prevented depth assessment of pools, but it was possible to assess bed substrates of riffles and shallow glides. The upper reaches of the river had very occasional stands of lesser water-parsnip, few other aquatic plants were seen except bur reed (early season and high turbidity may have affected plant growth and/or the ability to observe them).

The first of many weirs was observed at 52.470529, -0.996613, and retained a head of water ~0.3m (pic 1). It was starting to fail against the true left bank resulting in an attractant flow which could ease the passage of fish over the weir. However, it is likely to be impassable in low-flow conditions.

The weir had captured gravel immediately upstream of it, eliminating any depth habitat that it once provided. Fresh gravel had been deposited downstream of the weir pool, suggesting that the weir no longer acts as a gravel trap (having been filled over time).

Upstream of the weir, the river was impounded and uniform habitat. The flow was relatively slow and open to warming by sunlight, both conditions unfavourable to trout.



Pic 1 - The first of numerous weirs. It was failing against the true left bank.

Figure 1 illustrates the effect a weir has on geomorphology, particularly sediment supply. Whilst figure 2 shows how a weir can act as a gravel trap, reducing spawning opportunities. If a weir is removed it allows the release of large quantities of gravel, benefiting the river, allowing it to naturally reform ecologically valuable riverine features such as riffles and gravel bars.

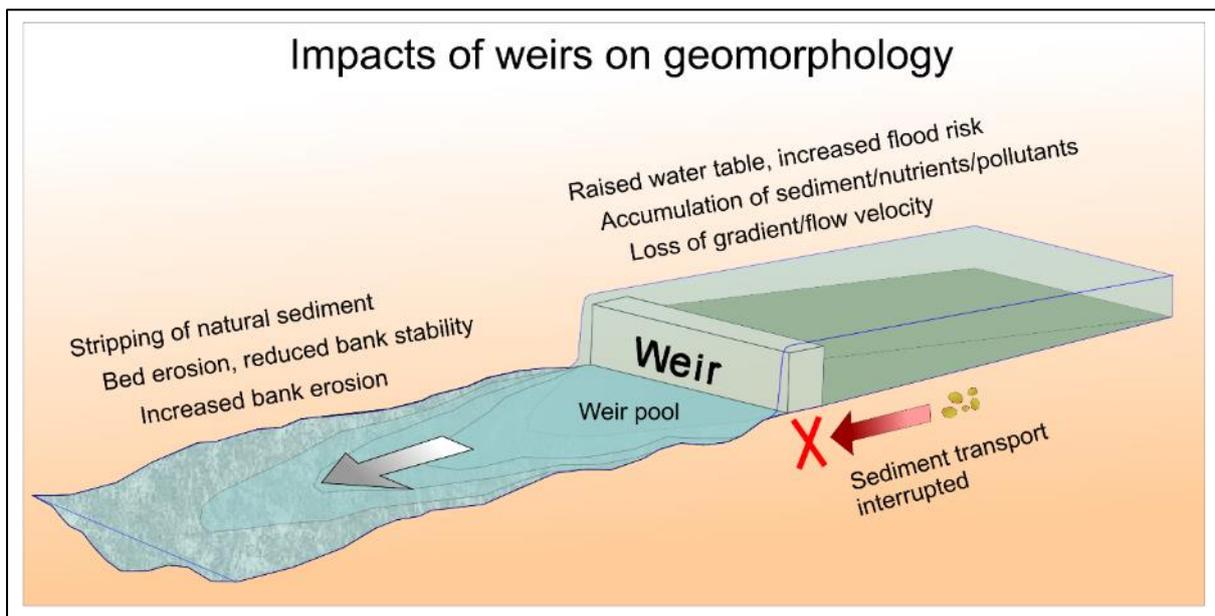


Figure 1 – The impacts of weirs on geomorphology.

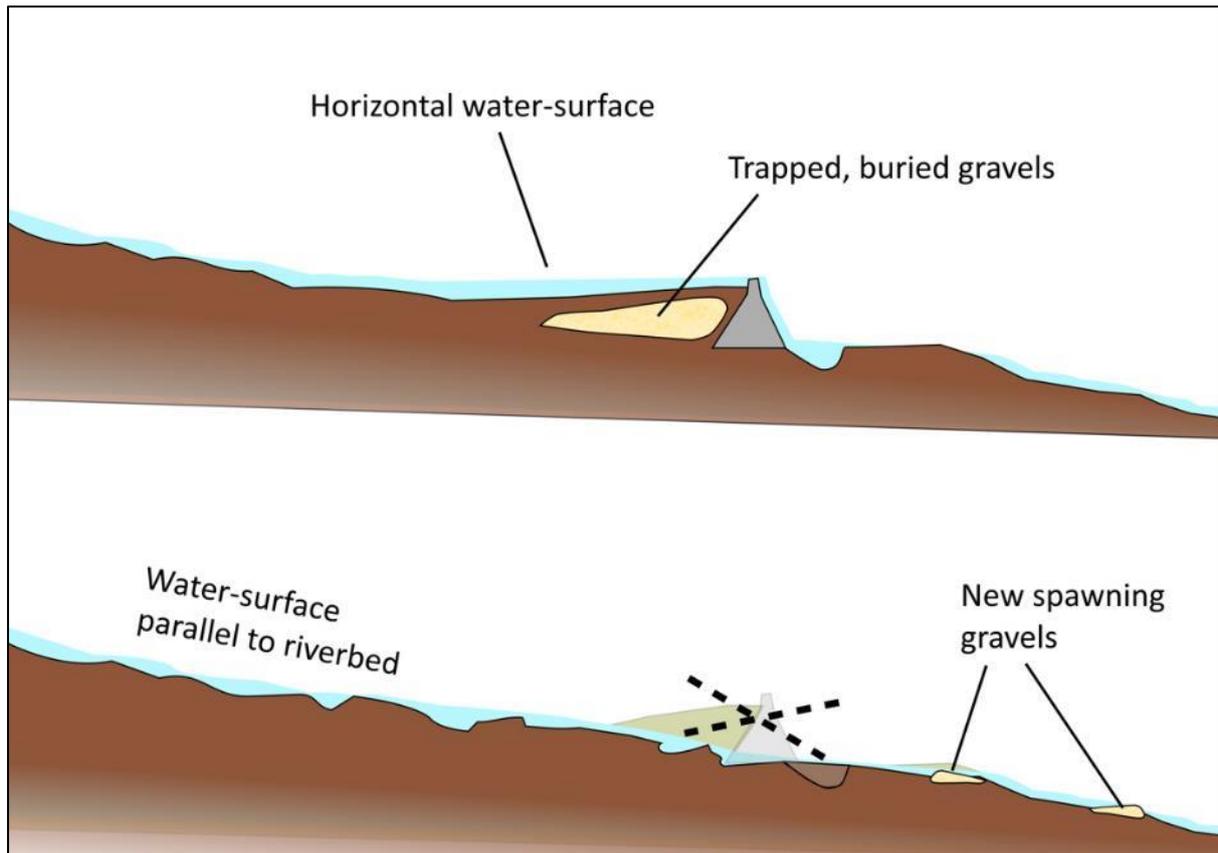


Figure 2 – An illustration of how potential spawning gravel can become trapped upstream of a weir.

The river flowed through an area of woodland with willow the main riparian tree. Many had collapsed over the river but re-rooted (pic 2). The effect was a river peppered with multiple tree-limbs across it along a relatively short (~50m), but very interesting and ecologically valuable, length. The numerous trailing limbs will collectively act to slow the flow, presenting excellent natural flood management (NFM). Where limbs had fallen into the water, they aided gravel sorting and transport following the multiple high flow events of the recent winter. A full channel-width gravel bar was observed with well-sorted gravel which was also relatively free of fine sediment. The occurrence of sediment sorting, transport and then deposition was clear (pic 3).



Pic 2 - Excellent woody cover and NFM.



Pic 3 – Gravel deposited creating a full width gravel bar; an important habitat which should improve over time.

The second weir was observed at 52,470125, -0.996214 (no photo available). It retained a head of water $\sim 0.15\text{m}$ and may have been passable to fish on the day but was likely to be impassable in low-flow conditions. It had also acted as a gravel trap. Downstream of it, tree roots held the bank firm and provided important marginal habitat.

A ford was reached, and it was clear that it was a pathway for fine sediment to enter the river due to its associated unsurfaced and eroded track (pic 4). An excess of fine sediment is detrimental to river ecology. Fine particles smother gravels, blocking the interstitial spaces between gravel which may be used by aquatic invertebrates or by trout for spawning upon.



Pic 4 – The ford produced a pathway for degrading fine sediment to enter the river.

At 52.469936, -0.993867 the third weir was observed (pic 5), retaining a head of water $\sim 0.25\text{m}$; the pool habitat was inspected revealing a depth $\sim 0.75\text{m}$. Upstream of the weir gravel was again trapped, and the weir had clearly elevated flood levels causing out-of-channel flow. Connection of the river to its floodplain is important as it prevents the rapid downstream flow of water which can gather in volume to the point where it poses flood risk to communities. Slowing the flow by allowing floodplains to hold (then slowly release) and store (by encouraging infiltration) water is the right direction of travel for river restoration projects. Slowing the flow also has benefits to river ecology as high flows will push weak-swimming trout fry (recently hatched fish) and aquatic invertebrates downstream. Floodplain connection also allows fine sediment and nutrients to be deposited on land rather than within channel, and it lowers hydraulic forces within the river, reducing bank and bed erosion (which causes channel incision).



Pic 5 – With $\sim 0.75\text{m}$ depth below this weir, fish may be able to pass it. However, it presents an impoundment causing degradation of habitat upstream, whilst interrupting the natural downstream transport of gravel.

With steep banks and a relatively narrow wetted width ($\sim 2.5\text{m}$) the channel was suffering from incision. Interrupted gravel supply, in combination with past dredging, is the likely cause of channel incision. But with extensive tree coverage, and binding roots, many parts of the channel are now held firm, resulting in steep incised banks.

Trees adjacent to, and within, rivers are a crucial part of riverine ecosystems. Their canopies provide summer shade which aids water temperature regulation (thus providing a degree of climate change resilience). As trees grow, they will drop limbs into the river, and may ultimately fall in too. The occurrence of branches and tree limbs within a river, together with the organic matter that they collect, may look untidy to some, but the presence of such material is of great ecological importance. Collectively, such material is referred to as Large Woody Material (LWM). LWM leads to an increase in the surface area on to which a biofilm (algae, bacteria and other microbes) can grow. In turn, the biofilm may become a source of food for invertebrates, increasing the total biomass that a river can support. Untidy rivers support much more wildlife.

Large pieces of wood had become naturally integrated within the channel margins as years of silt had back-filled around them, leaving some pieces acting as natural flow deflectors (pic 6). Other pieces were trapping fine sediment, leading to the formation of silt bars (pic 7). The main flow pathway had an increased velocity resulting in a scoured bed with a depth $> 1.2\text{m}$. Given woody material to initiate sediment scour, transport and

deposition, the river has capacity to restore some of its lost form but the loss of large quantities of gravel (due to the weirs and past dredging) will limit the natural capacity for restoration.



Pic 6 - A natural flow deflector (red oval).



Pic 7 - Excellent LWM material trapping high volumes of fine sediment (red arrow).

The fourth weir was observed at 52.469585, -0.991786 but it could not be assessed due to a large accumulation of woody material lodged upon it (pic

8); another problem posed by weirs as they restrict channel dimensions. Impoundment during high flows is believed to be the main cause of water on the right bank field (pic 9).



Pic 8 – LWM had accumulated against the fourth weir, causing a significant impoundment upstream.



Pic 9 - Floodplain connection because of water being pushed out-of-channel by weir 4.

The fifth weir was observed at 52.469397, -0.991033 (pic 10). It retained a head of water $\sim 0.5\text{m}$ and was considered a barrier to fish in most flow conditions.



Pic 10 – The fifth weir created a significant upstream impoundment in normal and low flows.

The value of fallen wood was again demonstrated as it retained a gravel point bar at a meander (pic 11). The fallen wood had also trapped flood material producing an important habitat for aquatic invertebrates such as freshwater shrimp.



Pic 11 – LWM trapped organic material (red oval) and aided the deposition and retention of gravel (green oval).

The sixth weir was observed at 52.469478, -0.990812. It retained a low head at ~0.1m but still presented an obstruction to fish passage, especially in low water or to weak swimming species such as dace.



Pic 12 - The sixth weir, small but still a barrier to fish passage.

It was pleasing to observe a wide gravel dominated reach, which as water levels drop should become an important riffle (pic 13). The gravel had some compaction and contained a high proportion of fine sediment but if sites are limited, it might just be possible for trout to use it as a spawning habitat. The algae on the gravel was noted, indicating a high nutrient load.



Pic 13 – A potential riffle, but it is degraded by algae (inset picture).

Several occurrences of trees fallen at bank top were observed (pic 14) which are important features to slow flood flows and deflect high flows downwards against the bed, initiating scour and sediment transport. Some could be manoeuvred to sit lower to the river and become more effective.



Pic 14 – Fallen trees demonstrated valuable NFM, but it could be adjusted to sit lower.

The seventh weir was observed at 52.47008667, -0.98944333 (pic 15), whilst retaining a head $\sim 0.1\text{m}$ it was considered to only present a barrier to fish movement in low water, but it would interrupt the downstream supply of gravel.



Pic 15 – The seventh weir.

A paleochannel was observed at 52.470017, -0.989218 (pic 16). Ideally the river should be re-connected to restore lost habitats and to increase the overall length of the river, which would also aid in slowing the flow. However, the extent of channel incision requires careful consideration as to where to form the new take-off from the river. Diverting the course of the river may result in the loss of ecologically valuable parts of the current river, for long-term gain. Channel re-connection should be aspired to as the best outcome delivering protection to downstream communities against flooding and delivering valuable habitat gain.



Pic 16 – A paleochannel (red line) with potential for reconnection to the river.

An area of open river was observed (pic 17), and with no shading from trees it had great willow herb and reed canary grass dominating the margins, providing channel narrowing to $\sim 1.5\text{m}$. The depth appeared uniform with little flow variation. The open length was not considered particularly ecologically valuable. Habitat beneath the tree canopy was considered more valuable due to the input of LWM, existing flow variation and accumulations of coarse bed substrates.



Pic 17 – A contrasting area of open channel was observed at 52.470637, -0.987978.

Several natural logjam “blockages” were observed (pic 18), representing important features. The accumulated woody material is vital for slowing flood flows, but appeared porous to normal flow with little impoundment upstream. The accumulated LWM constituted important habitat for both fish and aquatic invertebrates. Downstream of most of the logjams were gravel deposits resultant from scoured, sorted and transported bed substrates.



Pic 18 - Good NFM, one of a series of logjams.

Whilst not particularly notable for most rivers, the occurrence of several freshwater shrimp (*Gammarus* sp.) on sunken wood was very encouraging (pic 19). The upper Welland is depleted of freshwater shrimp, with water quality being suspected but the actual cause not known. Freshwater shrimp are a key component of the aquatic invertebrate community, shredding organic matter as they feed, and in turn make it nutrients (and themselves) available to animals higher up the food chain. Mayfly larvae (*Baetis* sp.) and blackfly larvae (*Simulium* sp.) were also observed.



Pic 19 – Freshwater shrimp amongst LWM (red oval).

Immediately upstream of the farm access track a mid-channel island had formed (pic 20). It offered a small but interesting area of different habitat, with small runs either side having areas of cleansed gravel, potentially of use by small trout to spawn upon (pic 20, inset).



Pic 20 – An ecologically valuable mid-channel island (52.470879, -0.986650).

A combined bridge and weir structure (the eighth) was observed at 52.471364, -0.985543, and retained a head of water $\sim 0.3\text{m}$ (pic 21). It had a brick sill which extended for $\sim 2\text{m}$, creating a barrier to fish passage in both low and high flows, but was considered passable at the time of visit. It would also interrupt downstream sediment supply.

Yet another (dilapidated) weir structure (the ninth) was observed at 52.471283, -0.985321 (pic 22). Whilst the head of water retained was $>0.2\text{m}$, it had the remnants of a brick cascade which could present challenges to fish trying to swim-up its $\sim 5\text{m}$ length.



Pic 21 – The eighth weir structure.



Pic 22 – The ninth structure, a long brick-lined cascade (red oval).

The tenth weir was observed at 52.471661, -0.984303 (no picture) and was considered passable to fish at the time.

The channel was then strangely clear of fallen LWM, suggesting that it may have been removed. The channel dimensions also appeared uniform suggesting possible mechanical clearance within recent years (pic 23). If this has been the case then dialogue is needed with whoever undertook the operation to understand what the objective was, whether it was achieved, and whether an alternative approach could be considered.



Pic 23 – The channel appeared strangely devoid of LWM and had a uniform appearance (52.47142333, -0.98510000). Had it been recently maintained?

In contrast to the open areas and those with no LWM accumulations, the channel became hidden by dense shrubs, tall trees and bramble. On pushing through, more natural woody accumulations had led to temporary logjams forming (pic 24), again with much ecological value.



Pic 24 – An ecologically valuable logjam (52.47138889, -0.98357000).

A short distance downstream the channel was partially covered by tall trees, which allowed for some light penetration resulting in better bank growth by plants. It was also evident that tree roots provided bank strength with stable near vertical banks, and tight meanders (pic 25). This allowed for gravel sorting and cleansing and once more, small areas of clean gravel suitable for trout spawning were found (pic 25, inset). Where the channel was gravel-lined it had a wide cross section at $\sim 4\text{m}$ (contrast with pic 17) leading to a shallower depth. Also of note was the lodged tree trunk at the top-of-bank. Its position on the bank would provide beneficial NFM. The open channel form did not continue for long, with young willow trees growing from within the channel a short distance downstream at 52.471607, -0.983993. Whilst the channel may look untidy, it is ecologically diverse with different flow pathways trapping gravel, and the woody features offering a wide range of ecological niches.



Pic 25 – With mature trees present the channel showed signs of stability with accumulations of clean gravel (52.47165167, -0.98285500).



Pic 26 - Untidy rivers are ecologically diverse.

The remains of a fish-stop structure (a grille across the river to retain fish) was observed at 52.470529, -0.982222 (pic 27). Its presence shows that the river was once stocked (almost certainly with trout), and the retained fish were the quarry of anglers. No angling takes place at present. The introduction of stocked trout is almost certainly the reason for the presence of ten weirs. Rivers were historically altered to create conditions more favourable to the retention domesticated hatchery fish. Those fish would have been raised in pond environments, making them poorly suited to small, and harsh, headwater stream environments, so physical alteration of river environments was often done to accommodate them. Fortunately, that practise has gone out of favour, and it is now more widely known that wild brown trout actually require almost the complete opposite; that being free-flowing rivers without obstructions, which have naturally varying bed profiles with abundant clean gravel for spawning and a range of cover and flow types providing for all of the wild brown trout's life stages.



Pic 27 – A former fish-stop. Has the grille caused the river to take a new path?

After the fish-stop the river's form changed because of land use. The right bank was subject to sheep grazing and consequently was treeless. As a result, the banks had no roots to hold them, and slumping was occurring (pic 28). To compound the situation, it appeared that in low flows sheep could ford the river and browse the left bank too.



Pic 28 – Bank slumping as a consequence of sheep grazing having removed trees.

The bank slumping was inputting high volumes of fine sediment into the river, but importantly it was also introducing some coarse sediment of cobbles and gravel (pic 29).



Pic 29 – Whilst bank slumping is generally degrading, it was exposing beneficial coarse sediments.

With little tree cover to control light to the channel, bur reed had found a footing in the degraded over-wide and over-deep channel (pic 30). Bur reed is often indicative of dredged channels which are now over-capacity. The plant readily colonises fine sediments, impounding summer flows whilst pushing water against the banks leading to their slow erosion and gradual widening.



Pic 30 - Bur reeds are indicative of over-capacity channels often dominated by fine sediment.

Ecologically valuable accumulations of LWM were observed at 52.47043500, -0.98022333 (pic 31), and it was apparent that the LWM was also retaining gravel in the reach, resulting in bed depth variation and flow diversity. The extensive cover given by the LWM could harbour trout. A short distance downstream and trailing trees provided excellent marginal cover for trout (pic 32), if present.



Pic 31 – Ecologically valuable woody accumulations.



Pic 32 – Trailing tree branches offer excellent trout cover.

Channel instability continued throughout the sheep grazed reach (pic 33), and it is unlikely to stop until the area is extensively eroded, with bank grades reduced or until trees stabilise the margins.



Pic 33 – Channel instability occurred where trees were absent.

A large gravel point bar was observed at 52.47038833, -0.97897833 (pic 34). It again showed the potential of the river to restore important riverine features if supplied with gravel, given the space to adjust, and finally if enough time can be allowed and protection from grazing given, the river could stabilise its planform through the stabilising effect of tree roots.



Pic 34 – A wide, gravel abundant, meander with a point bar showing sediment transport, sorting and deposition.

The value of a single partially collapsed tree was illustrated at 52.47105167, -0.97678833 (pic 35). With branches trailing in the water, it provided pockets of calm water, which in turn caused sediment to drop out of flow. If this tree was cleared, the gravel would continue to move through the reach to its detriment.



Pic 35 – Note how trailing tree branches have led to extensive gravel deposition.

A further example of the river's capacity to restore itself given flow, coarse sediment supply and channel stability was observed at 52.47078000, - 0.97615167 (pic 36). The downstream transport of cobbles and angular stone had armoured the bed resulting in the formation of a valuable riffle, and with the left bank held strong by ash tree roots there is an emerging pool and riffle sequence as one would expect (pic 37).



Pic 36 – The supply of coarse sediment results in riffle habitat.



Pic 37 – With tree roots holding the bank stable an undercut will have formed (red oval), material scoured from the pool has been transported (red arrow) and deposited forming a riffle downstream.

4.0 Recommendations

Plans to reconnect paleochannels should be fully explored as a means of delivering NFM and for restoring lost habitats. But the habitat gain needs to be considered carefully against any length of ecologically valuable river that will be “cut-off” following paleochannel reconnection.

All of the 10 weirs should be removed as they serve no current purpose. If the plan for paleochannel reconnection is progressed, then some weirs may become obsolete and it may be advantageous to retain them simply for floodplain wetting. The ideal situation is one that seeks paleochannel restoration in combination with the removal of weirs to restore natural processes and free passage along the river.

The removal of the weirs should be undertaken in combination with gravel placement to mitigate the loss of bed substrates and channel incision because of past dredging.

Channel incision creates a positive feedback system of bed cutting and channel instability as banks collapse and the channel widens. Bank collapse results in an over-supply of fine sediment which may smother any remaining spawning gravels leading to a lack of gravel-spawning fish (trout, grayling, chub, dace and minnow). Channel incision can only be properly

addressed by bed raising through the supply of coarse sediment to armour the exposed clay bed and restore the original bed profile.

Any measure to achieve floodplain re-connection should be aspired to. The channel appears to be disconnected by ~2m. With better floodplain connection the potential for flood-peak attenuation through temporary water storage could be quite significant with no obvious flood risk to property or infrastructure.

The slumped bank section in the grazed fields has no trees upon it. If trees were present their roots would aid bank stability. Tree planting is required at the toe of slumped banks, and at the bank top (set back 2-5m to ensure the trees can set roots before they experience scour). Fencing is therefore required to protect the marginal vegetation (ideally forming an excluded buffer zone of 10m), and especially any trees planted.

Lengths of almost inaccessible banks should not be seen as a problem. The cover provided by the trees may encourage trout to occupy the reach. Tree cover should be retained as it is and no fallen LWM should be removed from the river. Some fallen trees could be adjusted to hold water back, and to encourage it to come out-of-channel.

It was thought that some degree of channel management had taken place in recent years, with LWM having been removed downstream of the farm access track. Dialogue is needed with the person responsible if that were the case as the action does not appear to have given any notable flood protection gain but will have degraded river habitats.

5.0 Making it Happen

It is a legal requirement that works to a Main River require an Environmental Permit from the EA.

The Wild Trout Trust can provide further assistance in the following ways:

- Walking the river to undertake project scoping, followed by the production of a Project Proposal report.
- Assisting with the preparation and submission of an Environmental Permit, or by identifying appropriate exemptions to take forward small-scale habitat improvement works.
- Running training days to demonstrate the techniques described 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 material, enhancing fish stocks and managing invasive species.

The DVD is available to buy for £10.00 from our website shop www.wildtrout.org/shop/products/rivers-working-for-wild-trout-dvd 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:

www.wildtrout.org/content/library

An important source of income which helps to fund the WTT's work is our [Annual Spring Auction](#). The auction is our biggest fundraising event and includes fishing days, tackle, books, art and more. Many of our AV and PV recipients subsequently help us with auction lots each year, and we're very grateful for this extra support. To donate a lot, please contact WTT via Christina Bryant @ office@wildtrout.org.

6.0 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.

7.0 Disclaimer

This report is produced for guidance; 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.

Legal permissions may be required before commencing work on site. These are not limited to landowner permissions but may also involve regulatory authorities such as the EA, lead local flood authority and any other relevant bodies (e.g. Natural England and Forestry Commission) or stakeholders. Alongside permissions, risk assessment and adhering to health and safety legislation and guidance is also an essential component of any interventions or activities in and around your river.