



## **RIVER LAMBOURN, GREAT SHEFFORD**

FISH PASSAGE & RIVER RESTORATION PROJECT

**Project Summary - October 2025** 





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A - C: The impounding flow control structure at Manor Farm is in a particularly sensitive location for fish passage, being located on the boundary between the perennial and winterbourne reaches of the river. Improving fish passage at this location will have a beneficial impact on fish populations and the ecology of the river. For winterbournes to function well for fish communities, the temporary reaches upstream of this weir need to be effectively and naturally connected to the perennial reaches downstream.

# Impacts of impoundments on river habitat

Impounded river

Interruption of natural pool/riffle sequence\*

Loss of juvenile and spawning habitat

Accumulation of nutrients/pollutants Uniform (slow) flow

Un-impounded river

Greater habitat diversity

Greater biodiversity

Uniform sedimentation

Barrier to fish migration and sediment transport

Diverse flow patterns

Diverse depth

\*Impoundments often create 'weir pools' downstream which provide holding habitat but at the expense of naturally-formed pools and riffle habitat



Elcot Park, Marlborough, Wiltshire, SN8 2BG t: 01672 512 700 w: riverkennet.org Registered Charity No: 1120725 River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Figure 1: Wild Trout Trust illustration of the impacts of how the impounding flow control structure at Manor Farm has been impacting channel habitats and fish migration.





## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photo A: Marking out dimensions for weir notching.

Photo B: Disc cutter ready for notching weir.

Photo C: Sandbags being installed to help redirect flows over the structure for marking out and cutting.





### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photo A: Disc cutter being used to cut through brickwork to enable central notch to be removed from the structure.

Photo B: Excavator used to free and remove brick work from central notch.

Photo C: Temporary cofferdam installed to help de-water area for cutting iron sheet on the upstream face of the structure.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Structure after notch made (September 2025). Fish observed moving upstream and downstream through the notch immediately after works completed. The notch has also reduced the impounding effect of the structure and has exposed a gravel riffle upstream that had previously been drowned out by the impoundment.





## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A: Straight and over wide reach downstream of the weir pool. Heavyily shaded by uniform stand of Alders.

Photo B: The lower end of this reach also over wide and over shaded.

Photo C: High flow conditions in winter 2023.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Selective tree works being undertaken on the upper reach to help improve the light-shade ratio and increase growth and diversity of marginal and in-stream plant communities. Tree works included a mix of felling, coppicing and root plating. The majority of works was focussed on the uniform stand of bankside alders on the true right bank. Most of the woody material was utilised to create in-stream habitat features.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Tree root plates and other large woody material being placed in the channel through the upper reach. These will help create valuable cover and complex habitat for fish. Similarly, the timber will help drive changes in the morphology of the reach, encouraging greater variation in flow velocities and enabling erosion and deposition which will deliver a more diverse range of pool, riffle and glide habitats that will help enhance fish and invertebrate populations. All large woody material has been secured in position with chestnut posts and wire.





## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photo A: View downstream along true right bank after works completed. Light levels increased and remaining trees will provide the channel with dappled shade. Banks re-seeded upon completion of works.

Photos B-C: Excavator used to re-grade sections of bank through the upper reach to help create more sinuosity in the channel and improve floodplain connectivity.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: The middle reach (under high and low flow conditions) before works carried out. Historic modifications have created a straight and uniform reach of channel. Over-grazing by previous owners also caused the channel to become over-wide and devoid of bankside trees and in-stream cover. The existing light touch management has allowed the river to begin the process of self-repair with the colonisation of marginal plants helping to restore more natural channel dimensions and supporting a far more diverse riparian zone. The proposed works aimed to improve in-channel habitat diversity and floodplain connectivity.





## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Large woody material including tree root plates and whole trees transported from the upper reach to the meadow for use on the middle reach where there was a lack of existing tree cover to provide sufficient material for the proposed in-channel works. Woody material was then transferred from the stockpile in the meadow to the channel using the excavator and timber grab.









## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Excavator with timber grab being used to place large woody material in the channel.









## River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-B: More large woody being positioned in the channel.

Photo C: Large woody material being secured in position with chestnut posts and wire.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Tree root plates and other large woody material placed in the channel through the middle reach. These will help create valuable cover and complex habitat for fish. Similarly, the timber will help drive changes in the morphology of the reach, encouraging greater variation in flow velocities and enabling erosion and deposition which will deliver a more diverse range of pool, riffle and glide habitats that will help enhance fish and invertebrate populations. The timber will also add roughess to the straightened channel, slowing flows and encouraging better floodplain connectivity under high flow conditions.





#### River Lambourn, Great Shefford - Fish Passage & River Restoration Project

Photos A-C: Tree root plates and other large woody material placed in the channel through the middle reach. These will help create valuable cover and complex habitat for fish. Similarly, the timber will help drive changes in the morphology of the reach, encouraging greater variation in flow velocities and enabling erosion and deposition which will deliver a more diverse range of pool, riffle and glide habitats that will help enhance fish and invertebrate populations. The timber will also add roughess to the straightened channel, slowing flows and encouraging better floodplain connectivity under high flow conditions.









