

ARRT Project Summary

Project Title/Name: Western Rother Fishery Habitat Enhancement Project: New Riffle in main Rother Channel at Shopham Bridge	Date: (Start Date (Month/Year) – Finish (month/year)) Bid Deadline: February 2012; Start Date: July 2012 End Date: Contract to April 2014; Completed: Aug' 2013
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Location: [Grid Ref & Place Name](#): SZ 9855 1840; nearest postcode: Shopham Bridge Farmhouse, GU28 0JP

Country and County: United Kingdom, England

Project Status: [complete/in-progress/planned](#): Completed

River Name: [tributary/main river/catchment](#): Western Rother/Arun, Rother & Western Streams Catchment

Contact Name of Project Officer/Manager and Organisation: Ses Wright, ARRT

Funding Body & Budget: UK Govt': Catchment Restoration Fund (CRF): total Western Rother Fishery Project £109,800.00

Project Themes/Drivers: [Pick all that apply:](#) [In-channel habitat & biodiversity](#) [Flood risk management](#) [Urban rivers](#) [Environmental flows/water resources](#) [Land use management–agriculture](#) [Economic aspects](#) [Fisheries](#) [Hydropower](#) [Water quality](#) [Land use management–forestry](#) [Social benefits](#) [Hydromorphology](#) [Climate resilience](#) [Monitoring](#) [Education & Engagement](#) [Catchment planning and survey work](#)

Project Aims and Objectives: The project addressed the predominant reasons for failing fish status on the main Rother (EA Waterbody: GB107041012810) summarised as due to habitat degradation, including canalisation (especially widening), dredging and accumulated sand largely due to agricultural diffuse pollution. The project improved the poor (fish) habitat through the construction of a long 60m spawning and nursery glide/riffle, covering a stretch of main channel recognised to be of particularly poor habitat quality with no opportunities for fish recruitment/spawning. The new habitat comprised a long shallow glide over a gravel bed, that gradually rises to a broken riffle at the downstream tail. The work has significantly improved existing channel morphology which was over-wide and over-deep, with sluggish water flow and excess sediment issues that prevent reaches of self-cleaning gravels from developing and hence limit fish spawning. The works also significantly improved aquatic invertebrate diversity and abundance in addition to enhanced aquatic macrophyte/plant habitat.

Project Outcomes: Design & construction of a ~60m spawning and nursery rock and gravel glide/riffle comprised of ~400t of large (up to ~400mm diameter) Sussex sandstone boulders top dressed with ~260t of 20-50mm of angular land-dug flint river gravels; gradually raising the bed of a long, wide and deep reach of the main river to a broken riffle, providing access to self-cleaning gravel for fish spawning. Electro-fishing and invertebrate kick-sampling before and after the works showed demonstrable improvements, for example, a 6-fold increase in recorded fish abundance after ~12 months. The project was supported throughout by the local Petworth & Bognor Angling Club (PBAC). Bespoke fencing and tree planting was delivered along the improved reach to prevent cattle poaching of the banks and potential damage to the raised riverbed section. Full planning permission was obtained as part of the project planning process in addition to all legal EA permits.

Partners: PBAC, WTT, EA

Before the works:



Poor fish numbers with little/no spawning habitat along an over deep and wide channel with poor slow-flow dynamics.

After the works:



More dynamic flow regime with shallow and deeper sections over the long gravel/rock glide & riffle with self-cleaning gravel due to increased flow velocity.