

## ARRT Project Summary

<b>Project Title/Name:</b> Costers Brook Connectivity Project: Costers Mill Fish Pass Easement Project	<b>Date</b> (Start Date (Month/Year) – Finish (month/year)) Start: November 2011 (planning/engagement) End: December 2012 (delivered & completed)
<b>Location:</b> Costers Brook, Costers Mill, Midhurst, West Sussex, GU29 0EN. Grid Reference: SU 89552 20680	
<b>Country:</b> United Kingdom, England	
<b>Project Status:</b> <a href="#">complete</a> / <a href="#">in-progress</a> / <a href="#">planned</a> : Completed	
<b>River Name:</b> <a href="#">tributary/main river/catchment</a> : Costers Brook/Western Rother/Arun & Western Streams Catchment	
<b>Contact Name of Project Officer/Manager and Organisation:</b> Ses Wright, ARRT	
<b>Funding Body &amp; Budget:</b> Defra River Improvement Programme (Phase 3); budget ~£40,000.00	
<b>Project Themes/Drivers:</b> Pick all that apply: <input checked="" type="checkbox"/> In-channel habitat & biodiversity <input checked="" type="checkbox"/> Flood risk management <input type="checkbox"/> Urban rivers <input type="checkbox"/> Environmental flows/water resources <input checked="" type="checkbox"/> Land use management–agriculture <input type="checkbox"/> Economic aspects <input checked="" type="checkbox"/> Fisheries <input type="checkbox"/> Hydropower <input checked="" type="checkbox"/> Water quality <input checked="" type="checkbox"/> Land use management–forestry <input checked="" type="checkbox"/> Social benefits <input checked="" type="checkbox"/> Hydromorphology <input type="checkbox"/> Climate resilience <input type="checkbox"/> Monitoring <input type="checkbox"/> Education & Engagement <input type="checkbox"/> Catchment planning/survey work	
<b>Project Aims &amp; Objectives:</b> Costers Brook is tributary of the Western Rother recognised for failing WFD targets for fish; its waterbody status was recorded as 'Poor' (Very Certain). As a chalk fed stream Costers Brook holds high conservation status and strong fish spawning potential, however, much of the lower reaches were drowned out in sand (due in part to surrounding land management) and upper reaches comprised concreted gravels due to their chemical composition, both of which significantly compromise spawning opportunities for fish. The low-middle reaches held the best overall fish spawning habitat however access was significantly limited by 2 obstructions, a weir at Costers Mill and (further upstream) a culverted farm bridge at Oaklands Farm; these together formed the Costers Brook Connectivity Project. The mill easement was delivered first. The impact of the structures and potential solutions were initially identified by Andy Thomas of the Wild Trout Trust (WTT) for the EA, with government (DEFRA) funding then becoming available to local Rivers Trust organisations (ARRT) to deliver a river improvement project in the form of easing fish passage over the mill.	
<b>Project Outcomes:</b> Fish passage at the mill was restricted due to several in-channel obstructions comprising a stone crump weir and sluice (immediately above) with artificially controlled water levels set within a narrow historic stone-built channel. The stone channel walls immediately downstream of the weir were in a dilapidated state and were repaired to prevent them caving into the stream. Fishtek Engineering Limited were sub-contracted to design a series of low oak baffles secured to the weir bed with notches to allow fish to navigate up and down the ramp over a wide range of water levels. Listed Building Consent was gained from Chichester District Council which set material and aesthetic landscape requirements and a Heritage Statement was also drafted by the ARRT Project Officer to accommodate cultural heritage aspects. The works were successfully completed and significantly improved passage over the mill for sea trout, brown trout, eel and other coarse fish species, opening up several kilometres of high quality watercourse (estimated at 5km upstream and 25km downstream) which directly contribute toward attaining 'Good Ecological Status' for the Costers Brook tributary and wider Rother catchment.	
<b>Project partners:</b> Fishtek Limited and Castleford Engineering Limited and Whiting Groundworks Limited, with support from the Wild Trout Trust (WTT) and the local Environment Agency.	



**Before the works:**

Shallow high velocity flow over a steep crump weir and upstream sluice significantly limited fish passage



**After the works:**

A low-rise oak baffle pass was preferred to a dedicated metal Larinier fish pass that struggled with the gradient of the weir.

