

Case Study

Reconnecting habitats

One of the main aims of the project was to *'increase the connectivity of the urban riverine habitat'*. Historical industry in Burnley had resulted in heavily modified channels that were typically cobble-lined with a straight and narrow central flume, through which water was forced at high velocity. The strong current prohibited upstream migration of fish through the town and did not allow natural substrate to become established. Furthermore, several weirs were present.

It was clear from the outset that there would be insufficient funding to alter the urban river channels in their entirety. Instead, careful planning and modelling identified 5 reaches where channel alterations would be technically feasible. These sections were regularly spaced such that upstream migration of fish could be achieved in stages. The innovative in-channel works involved the reorganisation of the channel's stone sets into more natural pool/riffle formations. The resulting pools were also furnished with overhanging ledges, giving fish both slow flowing water and cover. Early monitoring by Durham University PhD student Mike Forty has already indicated a significant increase in resident trout numbers.

Work was also undertaken at a 3m high vertical weir, where the only option feasible was a technical fish pass. A bypass mill race already existed as part of the weir structure on and a Larinier fish pass was fitted inside this. An eel pass was also installed.



As a result of the in-channel works in Burnley, the riverine habitat is now connected from the estuary of the River Ribble and up through the rivers Calder and Brun to the smaller tributaries above the town, making significantly more spawning habitat available to migratory salmonids.

