

Catchment Restoration Fund (CRF) Project Briefing Note



Kirkstall Valley Weir Fish Passes

From the 1850s to the 1970s the River Aire was basically fishless from Bradford and Leeds to its confluence with the Yorkshire Ouse. Over the last 35 years the water quality in the river has improved to such an extent that there are now fish populations along the full length of the river. The only fish species which are now missing are the salmon, sea trout and other migratory fish species which used to inhabit the river. The migratory fish are prevented from returning by a number of impassable and semi impassable weirs on the river.

The Humber District Plan of the Water Framework Directive recognises the need to deal with the problems caused by the weirs and envisages that self sustaining populations of migratory fish will return to the Aire and other Yorkshire rivers by 2021.

In recent years occasional salmon and migratory trout have been seen ascending the Aire as far as the totally impassable Knostrop Weir, a couple of miles downstream of Leeds. The recently announced Leeds Flood Alleviation Scheme includes a new weir at Knostrop and a fish pass thereon. The fish pass will be commenced in 2014. Upon completion of the Knostrop fish pass, salmon and other migratory fish will begin to progress through Leeds for the first time since the end of the 18th Century.

To enable the migratory fish to ascend upstream from Leeds to suitable spawning areas, it will be necessary to improve passage over the weirs upstream of Leeds. The Aire Rivers Trust's Kirkstall project intends to deal with two of these weirs at Kirkstall in Leeds by putting fish passes on them. The fish passes will also benefit the other species which already inhabit the river but are prevented from reaching optimal spawning and feeding grounds.

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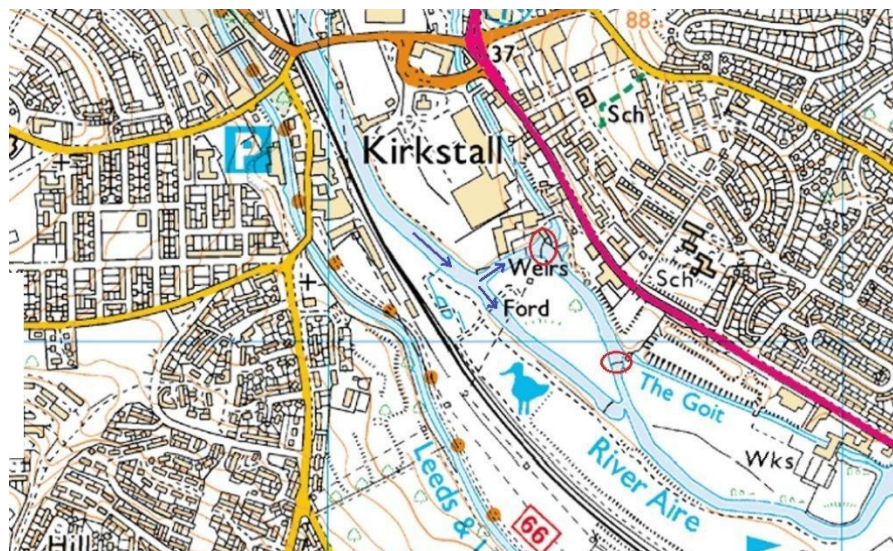
Description of Works

The two weirs which the Aire Rivers Trust intends to improve for fish passage are at St Ann's Mills and Burley Mills in Kirkstall. The weirs are both situated on the left side channel (looking downstream) of Kirkstall Island. There are two weirs on the right side channel but careful consideration has led to the belief that fish will use the left side where the heavier flow is located.

The Aire Rivers Trust has already formed a consultation group which comprises of canoeing interests, Leeds Council officers with an interest in the site, Aire Action Leeds, the Environment agency and other interested parties.

Key facts	
River Basin District	Humber
Catchments	Aire and Calder
Outcomes	Improvement for fish passage around Kirkstall Island on the River Aire in Leeds by provision of fish passes at St Ann's Mills weir and Burley Mills weir.
Start Date	July 2012
End Date	March 2015
Budget	£594,500
Project Partners	Leeds City Council (Main partner). Other partners and collaborators are the Environment Agency, Canoe England, Aire Action Leeds and the West Yorkshire CARP Group (Calder and Aire Rivers Project).

The first step in finding a solution at Kirkstall was to appoint JBA Consulting to do work on river levels and flows around the weirs. The Environment Agency was also very helpful in supplying information which it obtained from its measuring station at Armley, a mile downstream. In addition, other information was available from preliminary investigations carried out for the Leeds Flood alleviation Scheme.



The next step was to appoint Fishtek Consulting to use the data mentioned above to design an outline plan for improved fish passage. The outline plan has now been produced but is still subject to further discussion. The favoured solution at present is a Larinier fish pass on the left side of each weir. The main criteria for selecting the type of fish pass were effectiveness, robustness and low maintenance.

Burley Mills weir, the furthest downstream of the two weirs, is a Grade 2 listed structure whereas the weir at St Ann's Mills, although in a historically significant area, is not listed. Conversations are being held with the Council's Conservation Officer and it appears that the listed status of Burley Mills Weir will probably affect the type of material to be used for the fish pass.

The Trust intends to discuss the outline plan with the members of the Consultation Group in the near future. Other on-going work is focussed on land ownership at Burley Mills weir, future maintenance liability, and future ownership of the fish passes.

What will success look like?

In the short term, the main objective is to construct two fish passes which are effective, produced within budget, and which are used by as many fish species as possible. The fish passes will be robust, incur low maintenance costs, will be of an attractive appearance and fit into the historical context of the area. It is also intended that added benefits can be derived for other user groups in the area.

The medium and long term objectives are to improve the ecology of the river locally and also to play a part in the return of salmon and other migratory fish to Leeds, Bradford and parts of North Yorkshire. Both Leeds and Bradford Councils recognise the economic benefits which the return of salmon will bring to the two cities, particularly as regards the area's image and as a huge symbol of regeneration.

About the team
Director: Kevin Sunderland (Chairman, Aire Rivers Trust)
Admin & Finance: Jeremy Whaley (Secretary / Treasurer, Aire Rivers Trust)
Project Manager: Dewi Davies (Turner & Townsend)
Other members of the project board
Peter Davis (Leeds City Council Flood Alleviation Manager), Councillor John Illingworth (Leeds City Council, member for Kirkstall), Pete Turner (Environment Agency officer for the River Aire)



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