

Low Mill Weir Addingham fish pass proposal

July 2016

The Environment Agency works to improve the quality and biodiversity of our rivers. Part of this work is helping migratory fish overcome river obstacles to reach upstream spawning grounds.

Fish passage on the River Wharfe

The River Wharfe in North Yorkshire is a major tributary of the River Ouse which flows into the Humber Estuary. The river has a healthy stock of all the main riverine coarse fish species, along with brown trout and grayling.

Migratory fish like salmon, sea trout and lamprey stocks are in the early stages of recovery which is hindered by several major obstructions on the system; including the lowest obstruction at Tadcaster weir.

The Wharfe does not have many impassable weirs and many of the lower weirs already have fish passes that allow upstream migration of salmon and sea trout.

In 2009 the Environment Agency built a fish pass at Boston Spa and it now hopes to install a similar type of fish pass at Low Mill.

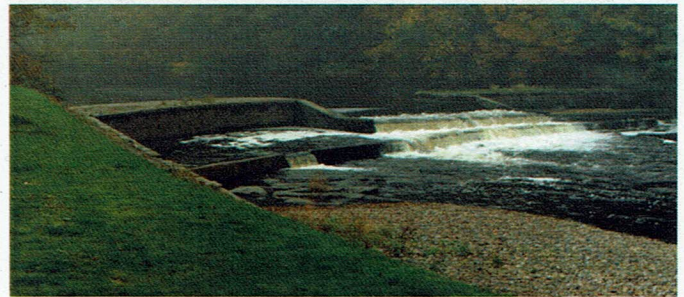
Low Mill wier

The current Low Mill weir flow gauging station was constructed in 1973 at the site of old Laisters Mill weir. The original weir was lowered to about half its height and a central Crump section added.

This station is important so the Environment Agency can measure river flows which is important for flood forecasting and managing water abstraction.

Some improvements were made in 2010 to assist fish passage, but these do not fully comply with fish passage legislation. The Environment Agency therefore proposes to install a modern efficient new fish pass in 2017.

The pictures below show the weir as it is now and how it would look with a new 'Larinier' fish pass. This will mean that during all river flows, fish will be able to ascend the weir to access spawning grounds.



Current appearance



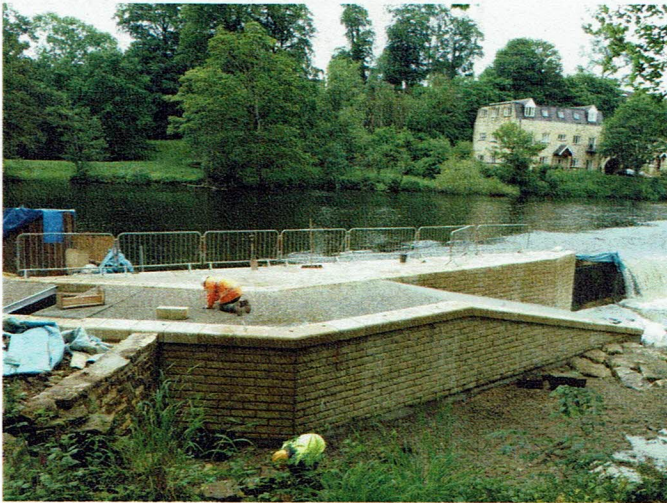
Proposed appearance

What is a fish pass and why do we need one at Low Mill?

A fish pass, or 'fish ladder' as they are sometimes called, helps fish to ascend normally impassable obstructions.

These are usually weirs that historically were constructed for milling, navigation or water abstraction.

The older type of fish pass used a series of pools that fish ascend in smaller steps. These types of fish pass are installed at Flint Mill near Boston Spa and Wetherby.



Modern fish passes use baffles to slow the water velocity and allow fish to swim up a ramp. The most popular design is the Larinier fish pass as installed at Boston Spa (pictured above).

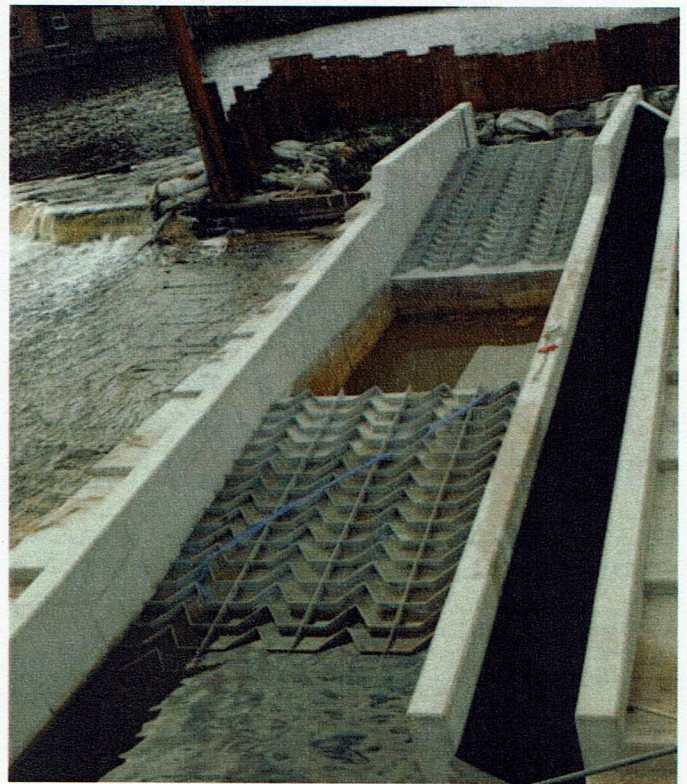


Wetherby fish pass

Why is the Environment Agency doing this now?

Under the Water Framework Directive, the Wharfe is failing in ecological quality because of the absence of salmon upstream of Otley.

The Otley hydropower project has installed a new Larinier fish pass and so fish will be able to access the river upstream as far as Burley. The Environment Agency leases the weir at Low Mill and so is responsible for fish passage under WFD and other legislation.



This picture shows a Larinier fish pass with a resting pool half way up. This is the type of fish pass that is proposed for Low Mill.

Find out more

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