

SANDFORD HYDRO – THE FISH PASS



Sandford Hydro is the largest community-owned hydro on the Thames. Initiated by a group of local residents, the project has been built and will be operated by Oxford-based social enterprise Low Carbon Hub.

It has returned the Lasher Weir to its original role as a generator of clean energy. The hydro scheme is expected to generate a colossal 1,600 MWh of renewable electricity per year, which is the equivalent demand for about 450 households – or most of Sandford!

Purpose

The fish pass allows fish of all kinds to migrate upstream beyond the Lasher Weir for the first time in over 400 years. It is a separate water course that links the Thames up- and downstream from both the weir and the hydro-electrical plant, effectively a watery by-pass for fish.

Particular species it is designed to help include salmon, sea trout, brown trout, eels, fast water coarse fish (e.g. barbel, chub, dace) and also slow water course ones (e.g. roach, bream, pike).

Design

At Sandford, we have an innovative design by German expert Dr Reinhard Hassinger from the University of Kassel. It is the first one of its kind in the UK, with the novel design combining concrete and naturalised sections, resting pool and spawning grounds.

At the upstream and downstream end of the pass are technical sections comprising brush and baffle components, set at a gradient of 5%. Between these two technical sections are 120 metres of a natural, gravel-lined channel at a gradient of 1 in 160. This provides additional stream habitat, including spawning and nursery habitat for a variety of species of fish. The resting pool has a volume of 22 cubic metres.

Build

Some parts were made by specialist suppliers in Germany, including some by a social firm employing people with disabilities. The channel itself was constructed at the same time as Sandford Hydro was being built from late 2016 and completed in the autumn of 2017.



To find out more about the project, visit the [Low Carbon Hub website](https://www.lowcarbonhub.org).

www.lowcarbonhub.org

The Low Carbon Hub CIC (Community Interest Company)

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