

PROJECT LARNIER TYPE FISH PASS INSTALLATION



Stonbury were commissioned to install a fish pass at Crumpwood Weir, near Uttoxeter, which was identified as a significant barrier to fish migration. The works included the construction of a two flight Larnier type fish pass and also included the refurbishment of a bar screen and new sluice gates on a historic South Staffordshire Water pump house.

Before works could begin, several trees close to the Grade II listed structure were carefully removed, and the works area was drained down. The old bar screen, sluice gates and walkways were then carefully removed, along with large amounts of silt and debris, allowing access into and around the pump house.

One of the three old water turbines, dating back to the early 1900s, was also removed to allow access to the two-storey undercroft and tailrace. The mechanical equipment which was removed has been set aside to form part of a new heritage exhibition planned for the pumping station.

Sections of the existing internal walls and floors were demolished, and new reinforced concrete walls and floors were constructed below the old building. The new walls will form the fish pass which will eventually allow migrating fish to bypass Crumpwood Weir.

Through careful design, two of the three pumps can still be used once the pumps have been refurbished as part of a future project.

On completion of the rebar, shuttering and concreting works, a steel frame for the new bar screen was installed, along with the two new sluices, used to control the flows through the building. Steel walkways with hand railings were also installed to provide safe access when inspections and maintenance works are required.

Fabricated fish baffles were laid inside the newly formed channel, forming areas of turbulent and still water to create an aquatic ladder and provide access for fish above the weir.

Following an inspection of the works, the downstream cofferdam was fully removed, and the existing upstream bank was excavated to allow the river to run back under the structure and through the newly created fish pass.