

Merthyr Fishpass

Overview:

Site Location:	>> Merthyr Tydfil
Client:	>> Environment Agency
Contract Value:	>> £265,000
Duration:	>> 18 Weeks



The existing weir at Merthyr Tydfil provided an unsuitable passage for migratory fish to enter the upper regions of the River Taff. The construction of a Fish pass was proposed, however, key considerations were access, which was via the existing College and Town Car Park, the proximity of the adjacent pedestrian footbridge and the need to maintain this and most importantly the flow fluctuations within the river itself. An assessment of the river bed and the downstream existing natural island quickly established that the majority of flows could be diverted on to the opposite side of the river whilst the works were constructed. We also identified significant sedimentary rock and river bed material which we considered suitable to create the diversion with native material.

Method Statements were detailed proposing the re-use of the native material to create the bund and also a method statement which permitted overtopping of the bund in the event of increased river levels with an emergency Flood mitigation plan.



The work itself commenced with a detailed traffic management and pedestrian segregation plan ensuring the existing car park and pedestrian access and bridge access were maintained. Land take was minimised by utilising an in situ panel formwork system and establishing a remote storage area for any materials which had the possibility to introduce any form of Environmental Risk. Silt blankets were laid in the river bed and a silt boom bridged the river downstream to facilitate access in to the river.

Once the protection booms and blankets were installed a ramp was created in to the watercourse with machines operating on 'Green' Hydraulic oil. Blockstone was placed to provide the primary bund strength with the native river bed material being used to form the seal. Within a 10hr shift access was obtained, blockstone placed and sealed and the watercourse diverted.

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The Fishpass itself was an in-situ RC structure. Precast elements had been investigated however due to the inconsistent river and weir profile, in situ was the preferred option. Concrete pour sequences were developed to minimise construction joints and hence save time and the structure itself was built within 9 weeks. Structural steel flooring and internal rest bays etc were pre-ordered and installed with our trades to reduce Sub contract interfaces.



The project itself was delivered on programme and was opened to a tight timescale minimising the risk of a flood event. The diversion bund operated without issue and the silt booms ensured any silt disturbance was captured and managed at source. The Fishpass incorporated pedestrian viewing platforms and has enhanced the environment both locally and upstream. Detailed Method Statements, linked to each of the key phases ensured a clear understanding of the proposed works and facilitated a well managed construction whilst minimising Environmental Risks.



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