



Project: Langford

Location: Collingham, Nottinghamshire

Fish & Eel Passage

Client: RSPB



Langford Lowfields is a flagship partnership project involving the RSPB and Tarmac, showcasing wetland habitat creation on a large scale. A thriving reedbed sits at the heart of this expanding reserve, with wildlife highlights including bitterns, brown hares, bearded tits, marsh harriers, avocets, wintering wildfowl, starling murmurations and colourful wildflowers.

Aquatic Control Engineering Ltd (ACE) were asked to assist in the design and install of a new fish and eel bypass at the site. The previous fish and eel pass that was in the location had proved to be very ineffective due to it being too large.



The difficulty at the site is that structure did not allow for a simple retrofit of ACE's standard eel pass designs. There is also no power at the location adding to difficulties for installation of the standard solution.

Using their years of expertise in the design and installation of fish and eel passes ACE looked at developing a solution for this difficult site. Using their highly trained design experts ACE developed a simple yet effective solution of a gravity fed eel pass, which can self-adjust as the water levels change.



Another challenge at the site was the ability to maintain water levels in the reserve and to prevent flooding from the River Trent. ACE used a tilting weir for controlling the water levels at the reserve and holding the water levels for the wading birds. A fish friendly flap valve was used as flood prevention. The ingenious fish friendly flap valve was first invented by ACE in 2008, and while providing a reliable level of flood protection also allows fish and eels into the reserve. In the event of the reserve needing emergency isolation or maintenance of the equipment ACE also installed one of their HDPE and stainless-steel penstocks.

The site will continue to be monitored as there are benefits of this system that can be used for other applications.

Aquatic Control Engineering Ltd

www.aquaticcontrol.co.uk
info@aquaticcontrol.co.uk
01777 249 080

Aquatic Control Engineering are market leaders of innovative water flow control, maintenance and fish passage equipment. We are proud to supply our customers with high quality, innovative solutions and high standard installation services for over 20 years