

Project: Ashlone Wharf Regeneration

Location: London



Flap Valves; Penstocks

Client: VolkerStevin & WS Atkins for the Environment Agency



Ashlone Wharf contains a structure which controls the flow of water between Beverley Brook and the Tidal Thames. It is part of the Thames defences, protecting London from flooding. The wharf had fallen into a state of disrepair. If no action was taken, engineers anticipated the gates would completely fail over the next few years, exposing the area to increased flood risk. The wharf's lack of fish and eel passage meant it also failed to comply with current legislation as well as the objectives of the Water Framework Directive (WFD).



An integrated team, comprising of WS Atkins and VolkerStevin worked with the Environment Agency to refurbish the wharf. During the design, the team wanted to reduce the cost of the project and make resource savings. ACE has a good working relationship with both parties and was asked to supply a number of products for this project.

Two HDPE top-hung flap valves were installed to replace the near failing existing gates. Compared to alternative products these flapvalves are lightweight and maintenance free allowing a cheap and quick installation.



To allow fish passage and to conform the site to current legislation ACE worked with both Atkins and VolkerStevin to design and supply a Larinier fish pass ladder and an elver pass system inside one of the culverts. To prevent backflow in fish pass channel during tidal events a pair of side hung doors were affixed on the downstream side.

This closes at fixed water levels to prevent flooding; these levels can be adjusted and reset at any time.

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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

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Additionally, three isolating penstocks were supplied and fitted to the upstream side for emergency situations. One of the isolated penstocks has been designed specifically to shut around the fish pass channel and elver brush system. It is this bespoke design that ACE are particularly capable of delivering to our customers, using in-house expertise to design a solution specific to the project.

ACE worked collaboratively with both the contractor and the consultant, WS Atkins to arrive at this unique solution. The client believes that this system will significantly improve the ecology of the Beverley Brook immediately upstream.

Through efficiency and innovation, the team have achieved savings of approximately £80,000 as well as provided migratory channels for catchment fish and eels.

ACE would like to thank the Environment Agency, VolkerStein and WS Atkins for the opportunity to work with them on this project and look forward to more collaborations in the future.



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