



Stonbury were asked to investigate the use of hydraulic ram pumps as an alternative to electrically powered pumps for the Environment Agency, who required the installation of an eel pass on a crump weir in Bristol.

The typical solution would be to install an electrically pumped system. However, the cost to bring mains electricity to the site was prohibitive, and so an alternative solution was sought. An eel ladder would also not be suitable due to the vertical height of the weir and the overall distance to still water.

Working closely with the Environment Agency, Stonbury designed a pumped eel pass using three modern ram pumps. The total lift was 9m over 18m to ensure that the eels and elvers could be dropped into still water.

Prior to fabrication, the design was tested using CAD systems and once approved, was fabricated inhouse. The eel pass was then assembled in the workshop to check accuracy before installation on-site.

The installation was carried out with no disruption to the function of the monitoring station, and within 24 hours of commissioning, the first elver was recorded using the new eel pass.

As a result of the work done for this project, the team received the 'Environment Agency Project Excellence Award for Innovation'.