

# ACE Eel Passes

...part of our **Fish Migration Solutions** range



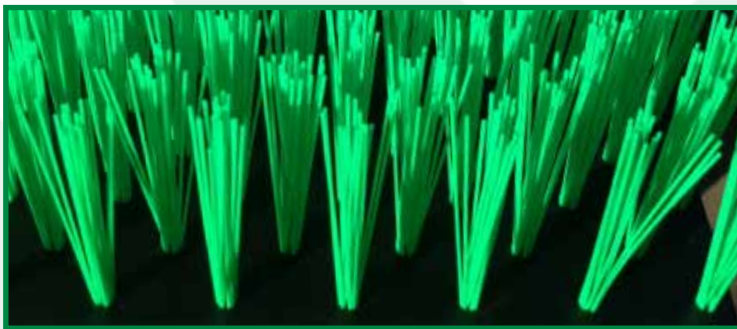
The Water Framework Directive focuses on waterway connectivity, in particular, to provide fish and eel passage at the thousands of migratory obstructions throughout Europe's river systems to boost river ecological status and population decline. However, in many cases these obstructions are important pumping stations, intakes and weirs needed for flood protection, water resource management and industry. Thus, solutions to improve eel migration without altering these structures are widely needed.

Aquatic Control Engineering Ltd, **market leader in the provision of fish and eel passage**, has a range of solutions available for any technical eel bypass project. Holistically approached, each eel pass is designed to the requirement of the site. With almost 10 years of innovation and best practice ACE is able to offer robust and functional solutions which meet current legislation and requirements.

## Brush Substrate

Eels prefer moist grassy environments with lower flows, which have been synthetically reproduced by installing a brush substrate into the channels. Substrate is available in:

- Different brush lengths
- Multiple brush densities for eel and elver
- Flexible or rigid base
- Spiral wound options for pipe channels



Rigid board eel brush substrate



Eel channel pumping station bypass

## Channel Design

Eel passes come in many shapes and sizes to deal with theft, difficult urban locations, health and safety and ease of installation. All of our channel sections are pre-designed in modular sections and fit to your site using 3D modelling.

- Pipe channel
- Box channel
- Multi-purpose channel
- Integrated Channel



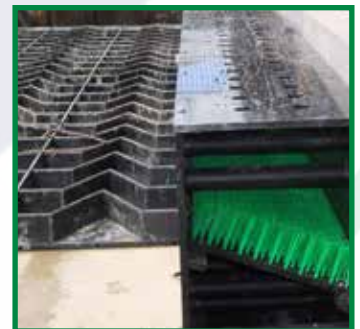
Pipe eel pass



Box channel eel pass



Channel Eel pass



Integrated fish and eel pass

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## Abstraction and Pumping

To provide a constant flow of water to attract eels to the pass and provide a moist environment, pumping is sometimes required. ACE has a number of pumping solutions to address:

- Remote/no electricity sites
- Regulated abstraction licences
- High vandalism and theft issues
- Renewable energy requirements (solar power)

Our pumping systems are 12v, cost very little to power and IP68 rated to prevent damage if fully submerged. Our experienced site engineers have installed a number of fully pumped solutions and can provide site assistance and full installation.



Eel monitoring box design



Eel trap solution



Solar pump unit for eel pass



Infrared eel monitoring

## Full Solution Support

Aquatic Control Engineering has installed hundreds of technical eel and fish pass solutions to the UK and Ireland. Alongside product manufacture and design additional services can be offered:

- Feasibility studies
- Site surveying
- Full project management
- Installation and commissioning services

## Channel Materials

**HDPE**  
(High density polyethylene)



**Aluminium**



**Galvanised Steel**



**Stainless Steel**



Combinations also used

## Monitoring

Eel and elver monitoring is an important aspect of such passes and helps in further innovation and design improvement. A number of our eel passes are designed to accommodate monitoring equipment such as:

- Eel counters
- Infrared cameras
- Eel monitoring traps