



# Project: Broadway Reen

Location: Natural Resources Wales

## Improved Control at Broadway

Client: Natural Resources Wales



The sluice at Broadway Reen in Newport originally incorporated an open channel and a Tilting Weir, and was identified in 2016 for refurbishment to improve flow control.

To allow the level to be maintained with minimal input from operators, and to allow setting of winter and summer levels, a special weir penstock was provided by ACE to provide optimum performance.

The penstock incorporates a bespoke stoplog assembly at its base, which allows the setting of a winter level, to ensure a minimum water level is always maintained.

The penstock blade then seals along the top of the stoplogs, allowing additional water to be penned during summer months, but in both cases, the weirs can be lifted to allow water to flow.

The removal of the stoplogs also allows for de-silting of the channel, and this option was chosen as a cost effective solution, whilst providing more flexibility than a "standard" penstock.

The penstock was also fitted with a Rotork Actuator to allow it to be operated electrically to improve operator safety and speed of operation- the sluice can be operated at the touch of a button, by one operative.

ACE were employed by Integral, working alongside the Natural Resources Wales in house workforce, and carried out the installation of this equipment in a single day.

ACE would like to thank all involved with the project.



**Aquatic Control Engineering Ltd**

[www.aquaticcontrol.co.uk](http://www.aquaticcontrol.co.uk)  
[info@aquaticcontrol.co.uk](mailto:info@aquaticcontrol.co.uk)  
01777 249 080  
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