

Further information:

**Edenvale Young Associates**

[www.edenvaleyoun.com](http://www.edenvaleyoun.com)

**Project Contact:**

John Young,  
Director

[john.young@edenvaleyoun.com](mailto:john.young@edenvaleyoun.com)

0117 214 0530

**Project Description number:**

EVY0282

**Project Type**

Flood Risk/Consequence Assessment

Flood Forecasting

Detailed Design

Calibration & Optimisation

Flood Map Challenges

Scour & Geomorphology

Water Framework Directive

Environmental Impact Assessment

Training

**Key Words:**

Water Framework Directive

**Client and other Organisations:**

Wye & Usk Foundation

Environment Agency Wales

## Gavenny Weir, Weir lowering Project

Edenvale Young Associates were commissioned by the Wye & Usk Foundation to produce detailed design drawings for a proposed scheme to lower a section of an existing weir on the River Gavenny. A Flood Consequence Assessment to support the application for Flood Defence Consent associated with the scheme was also required.



Illustration 1: Existing weir

### Project Details

The weir is composed of a vertical drop of 2.5m over the weir, which precludes the upstream passage of migratory fish.

The aim of the proposed scheme was to lower a section of the weir to a height such that it no longer presented a barrier to migrating fish.

The proposed scheme involved lowering a 1m wide section of the existing weir crest by 1m. The revised section creates a preferential flow path over the weir, and reduces the height of the obstruction. The 'box' is designed to provide a resting pool in which migrating fish can briefly recover from their initial leap. Bank erosion

would be avoided by ensuring that the scheme is confined to the centre of the channel.

The FCA was undertaken following detailed consultation with the EA. The Flood Maps indicated that flood levels at the weir were governed by downstream water levels in the Usk. Furthermore, lowering the weir crest would effectively reduce flood levels locally and hence represents a slight betterment in terms of flood risk.

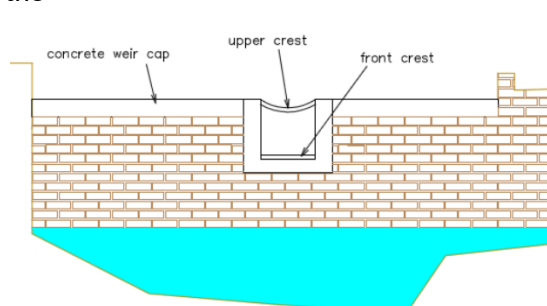


Illustration 2: Design of the proposed scheme