

Further information:

Edenvale Young Associates

www.edenvaleyoun.com

Project Contact:

Peter Aylett,
Project Manager

peter.aylett@edenvaleyoun.com

0117 214 0530

Project Description number:

EVY0336

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:

Strategic Flood Consequence Assessment

Fluvial and Tidal Modelling (ISIS-TUFLOW, ESTRY)

ReFH

Optioneering

Client and stakeholders:

Natural Resources Wales

Clarke Bond

Neath and Port Talbot SFC

Edenvale Young were commissioned by Clarke Bond to undertake modelling to support the creation of a Strategic Flood Consequence Assessment.



Illustration 1: Afon Afan, Port Talbot

Project Details

The objectives of the study were:

- To merge and update information from two existing models including recent developments and new flood relief schemes,
- To establish existing design flood events
- To investigate mitigation solutions to prevent flooding to development sites and assess any disbenefit

Both the existing NRW and Edenvale Young models were ISIS-TUFLOW with ESTRY components.

The mitigation options modelled were:

- Raising portions of the site with other areas lowered to provide flood storage compensation,
- Removing a bund located on a primary overland flow route.

Both options reduced flood risk in some areas, and it was suggested that sensitive design could eliminate the increased risk elsewhere.

Edenvale Young were later asked to investigate the impact on flood risk of constructing a park and a footpath using the model produced in this study.