

Further information:

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Project Description number:

EVY0184

Project Type

Flood Risk/Consequence Assessment

Flood Forecasting

Detailed Design

Calibration & Optimisation

Flood Map Challenges

Scour & Geomorphology

Water Framework Directive

Environmental Impact Assessment

Key Words:

ISIS-TUFLOW modelling

Strategic Flood Risk Mapping

Flood Consequence Assessment

Asset Condition Assessment

Client and stakeholders:

Environment Agency

Powys County Council

The Welsh Assembly Government

Welshpool PAS

Edenvale Young were commissioned to undertake a full Project Appraisal Study in Welshpool following a pre-feasibility study commissioned by Powys County Council.



Illustration 1: Lledan Brook Aqueduct

Project Details

The Lledan Brook is located in the centre of Welshpool. It has been identified as causing flooding due to the significant lengths of culvert along its length.

The objectives of this project appraisal study were to:

- Procure LiDAR, topographic survey data, and information from local residents,
- Undertake hydrological modelling and flood damage assessment for a range of return periods,
- Develop engineering designs,

- Provide a cost-benefit analysis,
- Undertake an environmental appraisal,
- Update EA flood mapping.

The Welshpool ISIS-TUFLOW model has since been used to:-

- Prepare the Unitary Development Plan for Powys County Council.
- Prepare a developer led FCA for the Smithfield site in Welshpool.
- Derive flood forecasting data for a new gauge installed on the Lledan Brook.