

# Flood Risk Management

**Client:-** Malvern Hills District Council

**Project:-** Tenbury Wells property level flood alleviation surveys

## Objectives

Hydro-Logic was appointed by the Tenbury Flood Task Group (TFTG) in 2010, to survey flood risk properties in Tenbury and identify suitable flood-protection measures. The project was designed in line with the DEFRA “property-level” flood alleviation scheme.

## Tasks and Deliverables

The Hydro-Logic team undertook building-by-building surveys of over 200 properties. A standard survey form was completed, with assistance from the owner/tenant and a list was made of all resistance and resilience measures that would be needed to provide protection. The proposed measures were mindful of the historic and Listed nature of some of the buildings, with outline designs being agreed with the local Conservation Officer. All the information obtained was entered into Hydro-Logic’s specifically designed spreadsheet database.

The Hydro-Logic team also checked and validated hydraulic models from the Environment Agency. Hydro-Logic then used the Hazard Mapping model framework to examine three additional scenarios: the 20-year Climate Change (CC), 50-year CC and 75-year CC and modelled levels were obtained for each property in the database, forming the basis for the evaluation of flood depths for each building.

One of the objectives of the project was to obtain costs of procuring and installing the various flood measures identified during the survey. The spreadsheet database was designed to make this a relatively simple task and to establish the relevant costs for a property or group of properties. To determine product unit prices discussions were held with various commercial providers of kitemarked flood defence and alleviation products.

## Outcomes

The immediate benefit of the project has been the provision to Tenbury of a complete and up-to-date survey of all the properties at risk of flooding, together with a comprehensive set of unit prices for flood defence and alleviation measures, which can be used to make significant financial decisions.



*Temе Street flooding during July 2007. Picture supplied courtesy of Worcestershire Council*



*Surveying the Old Rectory for potential measures*



*Inspection of door with existing barrier*