

Project Data Sheet

PROJECT

**Gloucestershire
SWMP**

CLIENT



Halcrow



- Sewerage
- Rivers
- Coastal
- SUDS
- Land Drainage
- Hydraulic Modelling
- Flood Risk Assessments
- Drainage Area Planning
- Asset Management
- Flood Alleviation
- Flooding Investigations
- Feasibility Study
- Drainage Design
- Environmental Aspects
- Inundation Modelling
- Surface Water Management

Surface Water Management Plans (SWMPs) are a framework through which local partners work together to understand the causes of surface water flooding and agree a cost effective way of managing that risk by making decisions that are evidence based, risk based, future proofed and inclusive of stakeholder views.

RAA were involved in one of the First Edition Surface Water Management Plans acting as a sub-Consultant to Halcrow for the Gloucestershire SWMP. RAA's detailed knowledge of Gloucester's sewerage network gained from modelling for Severn Trent Water together with our pluvial and fluvial modelling expertise has enabled us to build a truly Integrated Urban Drainage model.

For the Gloucestershire SWMP we undertook 3 stages of modelling. The initial 'overview' stage involved pluvial modelling of 5 major catchments covering nearly 30% of Gloucestershire. The second 'intermediate' stage involved more detailed pluvial modelling of the same catchments with sewers and culverts included. The third and most complex stage was a fully integrated model with all the sewers in part of Gloucester with 3 major urban streams included. This model was highly complex and was calibrated against the major flooding of 2007. The model was used to calculate the annualised flood damage (AFD) costs and then a number of potential solutions were modelled and cost estimates prepared. The reduced AFD costs were determined and a cost-benefit exercise was undertaken. A 'Drainage Strategy' and a 'Supplementary Planning Document' for the study area were prepared as the final SWMP deliverables. The project was completed in 2009.

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First Edition Surface Water Management Plans

