Cost-S – A whole life costing approach to sewerage

Introduction
The management of sewerage systems requires a balance between many, often opposing, objectives set out by different parties – consumers, shareholders, the Environment Agency, OFWAT etc. Combined with this is the fact that the network is ageing and complex.

Aims
To develop a methodology and software tool to assist management decisions in order to provide acceptable performance at a minimum cost over the whole life of the sewerage system.

Methodology
Cost-S is divided into three modules as shown in Figure 1. Network Definition describes the sewerage system and its performance. Hydraulic performance will be assessed through use of a hydraulic model (Figure 2). Asset performance models are being developed using historic incident data (Figure 3).

Conclusions
Cost-S is developing a package which will the investigation of different intervention strategies whole life horizon. This will be done through the use of predictive modelling techniques and a comprehensive cost accounting module together with a sophisticated decision support tool.

In collaboration with:
- EPSRC
- University of Exeter
- Northumbrian Water
- Yorkshire Water
- Anglian Water
- United Utilities
- Thames Water

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