



ENVIRONMENTAL



FLOOD RISK



DRAINAGE



ECOLOGY

Scottish Water Model Audits

Scottish Water, 2005 to 2009

Project aims

Clear auditors have been heavily involved in the SW SR06 and SR10 UID and flooding model audit programmes. These audits are necessary to sign off models as fit for purpose to design specific solutions.

Project summary



Clear have been involved in Stage 1 and Stage 2 audits for Scottish Water; auditing models from nearly 10 different consultants working for SW.

Stage 2 audits focus on the model build and verification stages, and in scheme areas. These follow a SW audit specification, based on 26 checks. There is heavy focus on ancillary modelling (e.g. UIDs) and the level of verification achieved in the area of a proposed driver or solution.

Clear have undertaken audits on a number of strategic catchments, where significant capital investment is proposed to address water quality or flooding problems: The Meadowhead catchment (Kilmarnock, Irvine, Troon, Prestwick, Ayr and smaller

villages), Edinburgh Eastfields, and the high profile Dalmarnock catchment in Glasgow.

The Dalmarnock audit required a review of an integrated model, containing the sewer system and watercourses, and the links between the two. The audit has been used to implement a programme of model upgrade to address flooding drivers ready for the Commonwealth Games in Glasgow.

Clear have also undertaken Stage 1 audits for a variety of non-strategic catchments such as Dunoon, Larkhall, Johnston, Motherwell and Aberdeen.

Stage 2 audits are a detailed review of solution modelling involving setting up for design simulations, check of modelled solution against design, and performance assessments to check the solution meets the required design standards. An



'engineering review' is also undertaken with consideration given to the buildability of the solution in terms of the existing network and site constraints.

Stage 2 audits have been undertaken for over 20 UIDs across the Meadowhead and Dalmarnock strategic catchments, and for a high profile flooding location in Dalmarnock.

Clear put focus on working with the modeller to address issues and ensure the appropriate model is delivered.

