

RATIONALISATION OF STORM STORAGE REQUIREMENTS AT SEWAGE TREATMENT WORKS USING SEWERAGE SYSTEM NETWORK MODELS.

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SYNOPSIS

This paper highlights the advantages to be gained in the use of sewerage system network models for rationalising storm storage requirements at Sewage Treatment Works (STWs). A case study is presented of the Flow Investigation Study for the Lodge Hill Sewage Treatment Works at Liskeard in Cornwall.

The study demonstrates the benefits to be gained from the use of effective operational descriptions of the contributing sewerage networks incorporating the Sewage Treatment Works inlet structures.

The better knowledge of the characteristics of the contributing networks, permitted an assessment to be made of;

- [a] the potential range of flows to the works ,
- [b] the implications on storm storage requirements, for specified performance criteria and service levels and
- [c] the optimum flows to receive full treatment for an identified level of service.

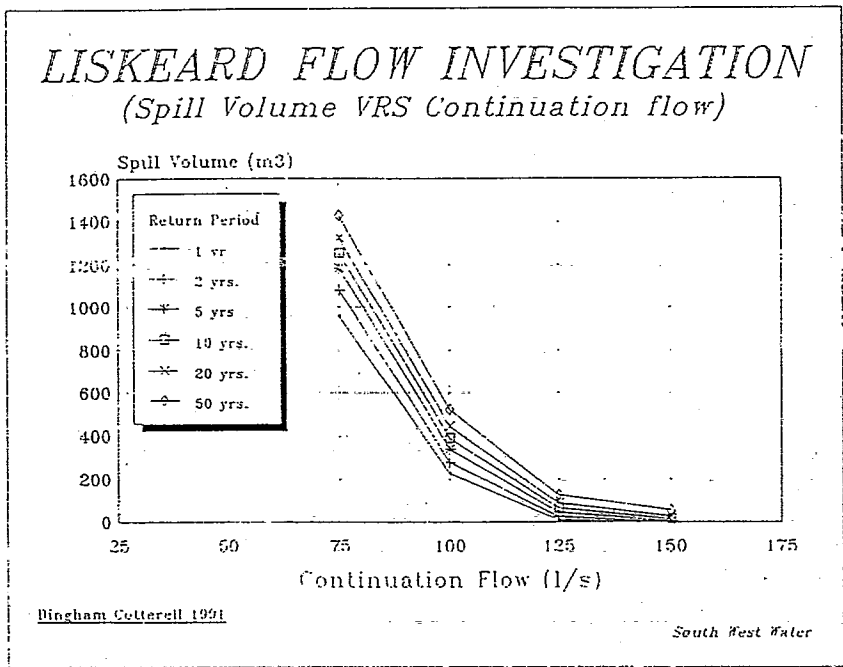
In line with the general trend towards integrated catchment management planning and pollution control, the author recommends that where operationally proven Sewerage System Network models are available, Sewage Treatment Works assessments should take into account the better description of the potential range of flows and effects of decisions on treatment levels.

This should lead to the identification of cost-effective solutions to the provision of storm storage requirements under the current investment programmes to upgrade STWs.

The author advocates that the selection of ultimate service levels to be provided should be based on an assessment of levels of risk derived from the probability distributions of flows at STWs.

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Paper 4: Rationalisation Of Storage For Sewage Treatment Works: (Dr R Andot, Bingham Cotterill)

Richard Holmby, Yorkshire Water : Both Yorkshire Water and North West Water are intending using the data collected for assessing consent compliance as the basis of design, rather than using the spill volume from a computational model. This is because of the requirements of the NRA.

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A Delegate : South West Water are trying to change this situation so that model results can be used.