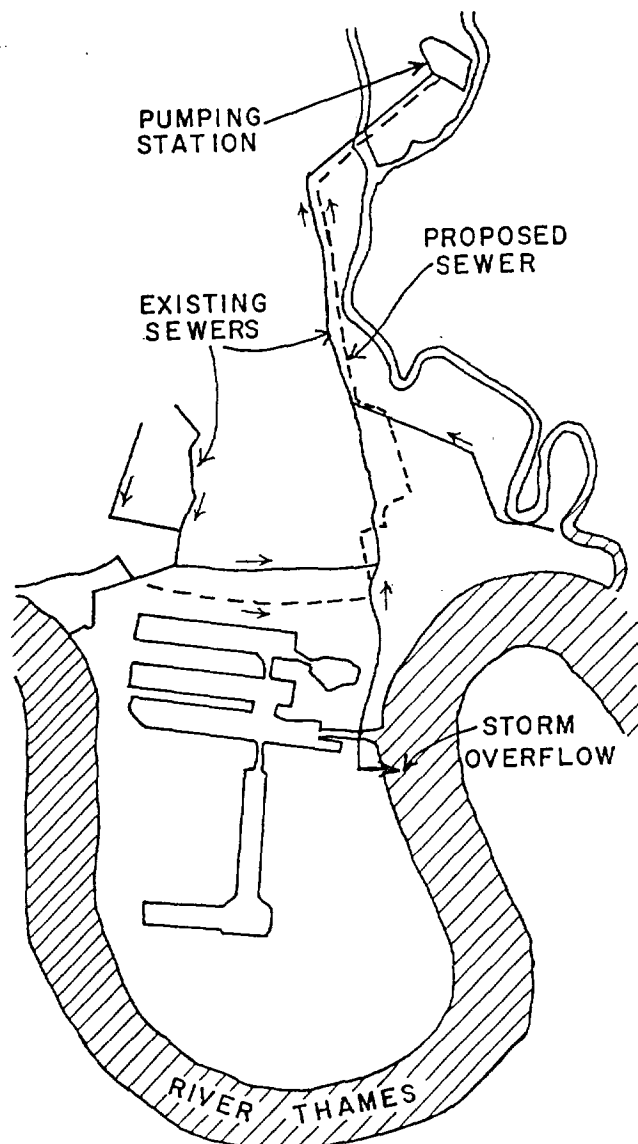


Mr. Allitt briefly outlined a study that had been carried out by Trevor Crocker & Partners for London Docklands Development Corporation covering the northern part of the Isle of Dogs.

The existing combined drainage system is governed by a large pumping station at the downstream end of the Isle of Dogs sewers. The station has limited capacity and cannot draw sewage levels below the springing level of the incoming sewers. Flows from the Isle of Dogs contribute only 6% of the total flows to the station, the remaining 94% coming from a catchment of 9,000 hectares from Hammersmith to Poplar. A WASSP model was prepared of the sewers in the study area and two versions of the model (one including the pumping station and the other excluding the station) were used to gain an understanding of the manner in which the drainage system operates. It was found that with the pumping station included in the model the hydraulic constraints within the drainage system could not be readily identified. In view of the fact that the station would be reconstructed or improved in the near future it was considered reasonable to use the model with the pumping station excluded. This enabled the hydraulic constraints in the system to be identified and hydraulic improvements to be considered for both the storm and dry weather conditions.

Following establishment of the best improvement option the pumping station was reinserted in the model to study the effects prior to uprating of the pumping station.



Discussion on Mr. Allitts' presentation

R. Forrest, Blackburn B.C.

How was the model verified?

R. Allitt,

It was not felt necessary to carry out verification as this would only have proved the operation of the pumping station.

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A. Jackman, Salford C.C.

A traditional solution to the problem has been chosen. Were tanks and other attenuation schemes considered which may have eliminated the need to rebuild the pumping station?

R. Allitt,

Attenuation was not a feature requested by Thames Water as the pumping station was due to be replaced for other reasons.

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D. Walters, Bolton M.B.C.

There appeared to be a very large amount of water generated in the system for a separate / partially separate system.

R. Allitt,

Only the new development was drained via a separate / partially separate system and this accounted for approximately 10% of the total.

D. Walters,

You predicted flows up to 3.5 cumecs which if not verified would involve a high risk element. What was the cost of the solution?

R. Allitt,

Thames Water were aware of the risk and were prepared to accept it. The solution was estimated at £10M.

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