

## Project Data Sheet

### PROJECT

**Cliff End CSO**

### CLIENT

**Morrison Brown &  
Root/Southern Water**



- 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

**This project was to bring the performance of the CSO at Cliff End Pumping Station up to the required standards to comply with the Bathing Waters Directive. The first stage in the project was to update and re-verify the model. Cliff End Pumping Station had to be added to the model together with the other changes which had occurred in the catchment.**

The original model for Seaford was built in WASSP format and converted in 1995 to SPIDA format but this was not entirely successful due to poor flow survey data and the tidal influences on the system at that time. Since the original model was built the marine discharges have ceased and most flows are passed to treatment via a new large pumping station at Cliff End.

A new flow survey, a manhole survey for selected areas and a new impermeable area survey was undertaken for about half the catchment. The model was then updated and re-verified.

Once the model was re-verified the hydraulic analysis using Stormpac storms was undertaken and appropriate solutions were investigated. The preferred option was to mobilise storage in existing sewers by means of penstocks installed at special chambers and controlled from the pumping station by means of an RTC control strategy.



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