

AQUATIC POLLUTION MODELLING

Our Capabilities

A broad range of modelling techniques and applied experience on the impact and fate of effluent discharges in the environment is required to produce intelligently designed models, focused on coastal, inter-tidal and estuarine environments. Our modelling experience has also been applied to pollutant transfer between aquatic, aerial and terrestrial environments. Our experience and expertise can assist clients from various industry sectors to successfully apply for discharge authorisations from the UK regulators. Such activities also demand an up-to-date knowledge of current environmental legislation.



Our Services

The range of modelling capabilities that exist within the group include:

- Support to industry and regulators for consent to discharge effluent applications.
- Emergency support to industry for effluent spills in the environment.
- Application of commercially developed 2D models to investigate the dispersion of contaminants in the vicinity of liquid effluent outfalls.

We have extensive experience in the application of models for the following UK coastal environments.

- Solway Firth- impact of radionuclide and chemical discharges for IPC applications.
- Teeside- academic research into the impact of nutrient discharges on the Tees estuary and surrounding coastal area.
- The Irish Sea- impact of radionuclides and metals discharged from industrial sites on the Cumbrian coast.
- Investigation of proposed discharge solutions for protection of bathing waters from sewage outfalls.
- Impact of unauthorised discharges from industrial sites.
- St Bees Head - impact of chemical discharges on SSSI's for COMAH reporting and EQS applications.
- Development of 2D problem specific models to predict the impact of discharges in estuarine environments.
- Ribble estuary- investigation of radionuclide and sediment transport in the estuary and its predicted impact using a vertically resolving estuarine sediment model.

Modelling tools available include

MIKEZERO, ELSID, PC CREAM, POSEIDON, MEAD. VERSE

Our Clients include:

- United Utilities
- British Nuclear Group
- NNC Ltd
- Rhodia Ltd
- Huntsman Ltd
- MWH Ltd

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