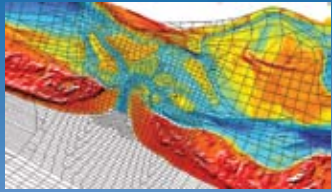


Estuary and River Processes and Management



Our estuaries and rivers, highly valued by local communities, are often placed under considerable pressure by anthropogenic activities. Typical sources of such impacts include dredging, catchment land use change, boat wash effects from vessel traffic, wastewater discharges and the construction of dams and weirs which affect natural environmental flow patterns.

Understanding the way in which estuaries and rivers behave and how they relate to the suite of pressures placed on them is crucial to devising appropriate management strategies to protect, preserve and enhance these valuable waterways. Our team of specialist engineers, scientists and ecologists has extensive practical expertise in this area.

We specialise in:

- Estuary and waterway management plans.
- 1D, 2D and 3D advanced mathematical modelling of hydraulic, water quality and sedimentation (sand and mud) processes.
- Morphological modelling.
- Bank erosion assessments and management action plan formulation.
- Estuary and river processes investigations
- Estuary and river management planning

Water Quality



Environmental water quality is affected by a wide range of influences, the impact of which can be considerable. Increases in pollutant loads combined with changes in natural flow regimes can lead to the degradation of environmental health and community's enjoyment of our natural resources.

Understanding the complexities of water quality dynamics and developing effective and pragmatic management strategies is our core business.

We specialise in:

- Water quality assessments within waterways relating to a flood discharges, urban runoff, flushing of harbours and marinas, turbidity associated with dredging and the spillage of contaminants at sea.
- Assessing the relationship between water movement and exchange processes, pollutant loadings and resultant water quality.
- Computer modelling of water quality processes on a catchment or receiving water (1, 2 and 3D) basis.
- Developing and assessing management techniques to protect water quality levels.
- Assessment of compliance with discharge requirements
- Real time water quality monitoring and management systems