

Projects

Gippsland Lakes 2nd Entrance Assessment



Client: Gippsland Research Co-ordination Group

The Gippsland Lakes are a group of coastal lagoons in the east of Victoria. At the eastern end they are connected to Bass Strait at Lakes Entrance. The Lakes are a local and regional icon site and form a significant part of the region's economy through such activities as fishing, recreation boating and tourism. The Lakes are wetlands of international significance listed under the RAMSAR, JAMBA and CAMBA conventions and are home to a variety of rare, endangered and vulnerable species including the Little Tern and the White-Bellied Sea-Eagle.



High nutrient loads from the catchments feeding in to the lakes, limited tidal exchange and favourable atmospheric conditions have led to a number of algal blooms, with devastating impacts to the local economy and environment. Preliminary broad scale modelling undertaken as part of the Gippsland Lakes Environmental Study (CSIRO 2001), suggested the creation of a second entrance to the Lakes to assist in reducing the incidence of algal blooms.



Water Technology undertook detailed assessments and numerical modelling of the Gippsland Lakes system to assess the impact of a second entrance on tidal levels and circulation, current speeds, water quality and flushing. The investigations also included an assessment of the significance of other factors including longshore transport, dredging requirements, impact of climate change and sea level rise, etc. and their potential impact on proposed circulation enhancement strategies.

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Services Provided

- Hydrodynamic modelling
- Water quality modelling and flushing assessments
- Assessment of coastal processes