

LagoonWatch

Narrabeen Lagoon

Background

The entrance of a coastal lagoon responds dynamically to rainfall and oceanic flooding. These factors impact on not only the safety of the public, but also the sustainability of water quality in the lagoon, in terms of its environment, ecology and recreational use. LagoonWatch is a real time rainfall and water level monitoring system for coastal lagoons.

Project Scope

Manly Hydraulics Laboratory (MHL), in conjunction with the Water Research Laboratory, developed a LagoonWatch system for Narrabeen Lagoon on Sydney's northern peninsula. LagoonWatch is used by both Warringah and Pittwater councils to view existing environmental conditions and predict expected future conditions.

Our Role

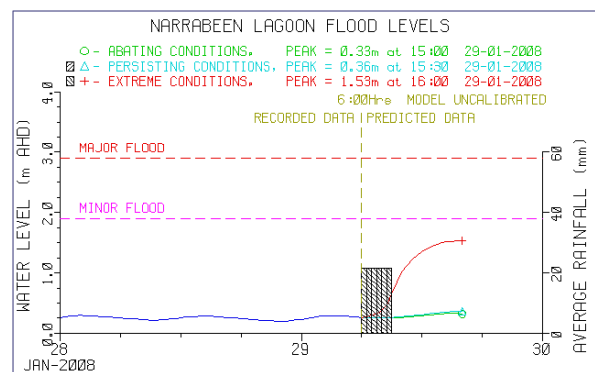
MHL has field stations that collect rainfall, tide and lagoon levels for Narrabeen Lagoon catchment. These environmental parameters are used to build the LagoonWatch model that predicts the environmental conditions over the next ten hours for abating, persisting and worsening conditions. The environmental data and model results are then displayed on a password-protected web page via MHL's website so the client can view updated data of actual conditions and model predictions.

Outcomes

With LagoonWatch, MHL can provide the client with up-to-date data on environmental conditions important for early flood warning and water quality control. LagoonWatch has proven to be an efficient and cost effective method of estuarine management for Warringah and Pittwater councils.



Narrabeen Lagoon



LagoonWatch – predictions for future conditions



MHL's water level recorder at Narrabeen Lagoon