

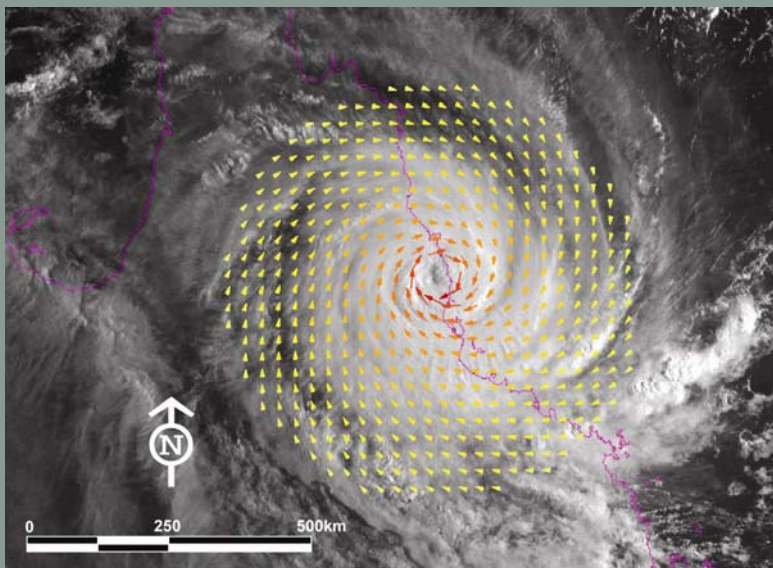
# Cardwell Inundation Study Storm Tide Modelling

BMT WBM have undertaken a study of the risks posed by coastal and riverine inundation of Cardwell Shire.

The scope of the study included the modelling and mapping of inundation hazards, examination and mapping of community vulnerability and risk, and examination of mitigation measures to reduce these risks.

The coastal inundation modelling assessment involved the following technical components:

- Hydrodynamic modelling of tides and tropical cyclone storm surges in the Coral Sea and Great Barrier Reef;
- Modelling of tropical cyclone waves;
- Modelling of inundation due to the combined effects of storm tides and waves;
- Calibration/validation of modelling systems to TC Larry and TC Winifred historical events;
- Cyclone climatology analysis;
- Parametric storm tide and wave model development;
- Monte Carlo Simulation of 50,000 years of cyclone activity; and
- Climate change scenario assessments.



*Tropical Cyclone Larry Windfield*

## Client

Cardwell Shire Council

## Date

October 2007

## Services & Expertise Provided

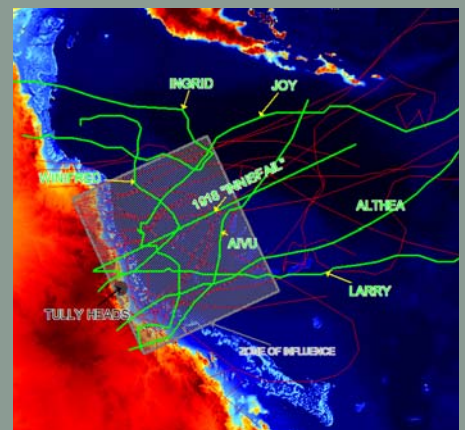
Tropical Cyclone Storm Tide Hazard Assessment;

Coastal inundation hazard modelling (numerical);

Coastal inundation hazard mapping (MapInfo);

Community vulnerability and risk assessment; and

Examination of risk mitigation measures.



*Historical Cyclone Tracks*