

Byron Shire Coastal Zone Hazard Definition Study

The coastal zone of Byron Shire has a history of erosion and inundation related to ocean storm tides and wave attack. A village at New Brighton was lost in the 1970's and, at Byron Bay, erosion of Belongil Spit and flooding of Belongil Creek due to elevated ocean levels and stormwater runoff are severe problems.

BMT WBM undertook a detailed technical coastal and ocean process investigation and Coastline Hazard Definition Study in line with the *NSW Government's Coastal Policy (1997)* and its *Coastline Management Manual (1990)*. This study is the first stage in development and implementation of a Coastline Management Plan for the Shire.

Hazards include:

- Long term (non-reversible) shoreline recession and oceanic inundation associated with storm tides, sea level rise (climate change) and a prevailing net sand loss alongshore;
- Short term (reversible) beach erosion; and
- Stormwater discharge impacts.

These were assessed for the required planning timeframes for each of four major beach compartments. Cumulative hazard zones were defined for immediate, 50 year and 100 year planning periods and mapped using GIS techniques.

The report was adopted by the Byron Shire Council in late 2000 and forms the basis for consideration of future coastal works and management options for the Shire's coastline.

Client

Byron Shire Council

Date

1999 - 2000

Services & Expertise Provided

Assessment of regional and local coastal and ocean processes including tides, storm tides, inundation potential, waves and sand transport;

Determination of coastline hazards (beach erosion, shoreline recession, oceanic inundation and climate change);

Definition and mapping of hazard zones for immediate, 50 year and 100 year planning periods; and

Community consultation.

