Managing Coastal Hazards —
a history of coastal erosion and the
Planned Retreat strategy within
Byron Shire

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Overview

This presentation explores the history of the
Byron Shire coastline with relevance to:

1. large coastal storm events and
   associated coastal erosion
2. Planning controls - "Planned Retreat"
   strategy and legal challenges

The Byron Shire

Immediate Coastal Development
Northern Byron Shire

Immediate Coastal Development
Mid Byron Shire

Immediate Coastal Development
South Byron Shire

Note: Aerial images captured in 2004.
Byron Shire Coastal History

- **1888**: First Jetty built (402 m long) in Byron Bay
- **1891-98**:Numerous shipwrecks from easterly gales and storms
- **1921**: "MV Wollongbar" wrecked off Byron Bay in easterly gale
- **1924**:New jetty built (610 m long) due to damage to old jetty from heavy seas
- **1928-36**: Period of severe extensive beach erosion
- **1948**:New jetty damaged and six fishing boats lost
- **1953-55**: Cyclone, extensive erosion to beaches, damage to new jetty, all 26 fishing boats lost
- **1954**:Period of severe beach erosion
- **1972-73**:Severe beach erosion, remains of jetty removed
- **1974**:February - Cyclone Pam: Beach erosion and property loss including Sheltering Palms Village
- **May/June -** Severe Erosion
- **1975**:NSW Government initiates a study of the coastline for the north coast
- **1978**:PWD Hastings to Byron Bay Study completed
- **1988**:BSC adopts planned retreat in Development Control Plan

Source: Byron – Hastings Point Erosion Study (PWD, 1978)
Sheltering Palms, 1977

By late 1977 a total of 17 houses had been abandoned and purchased under the Government’s Coastal Lands Protection Scheme.

Source: P Watson (DECC)

Planning History – PWD Study

The Byron Bay to Hastings Point Erosion Study (1978)

Following the storms of the mid 1970’s PWD undertook the study which identified 50 and 100 year erosion precincts and made recommendations on managing coastal hazards and erosion.

‘Byron was selected because it was already suffering major erosion problems and was potentially subject to enormous further pressure from beach front development…. [and represented]…the most pressing problems faced in the northern part of the state’ (PWD, 1978)

PWD Erosion Rates

- Following a stormy period PWD projected recession rates for the Byron Shire compartments.
- Given the loss of roads, development, and observed recession rates it was apparent that the beaches of the shire were not accreting, but were receding!

The Byron Bay to Hastings Point Erosion Study (1978) identified 50 and 100 year erosion precincts and made recommendations on managing coastal hazards and erosion. PWD 1978: “retain buffer zone (as above) and allow the construction of transportable and removable structures. In this case it would be advisable that the area be zoned such that protective works can not be undertaken and that buildings have to be removed as soon as they become affected by the landward boundary of the buffer zone.”
Coastal History - cont’d.

1984 Esplanade Road on Belongil Beach lost to the sea via erosion
1988 Byron Shire DCP Part J – Planned Retreat adopted
1996 Severe erosion from East Coast Low
1999 Severe erosion from storms and a large swell event
2001 Severe erosion from East Coast Low
2008 Moderate beach erosion under “moderate” conditions


Planning History

1979 Coastal Protection Act, 1979
  • Planned Retreat
  • Hazard precincts based on the PWD (1978) precincts
  • Restrictions on use on property transfer notices (S149 Certificates)
1990 NSW Coastline Management Manual (endorses Planned Retreat)
1997 NSW Coastal Policy / Established Coastline Committee
2000 Coastline Values Study adopted
2000 Hazard Definition Study completed
**Planning History**

2003  Investigate sand nourishment for Belongil/Byron Bay

2004  Adopted the Byron Coastline Management Study
  - adopted "Retreat" under public and private ownership for development and infrastructure

2006  Council considers Sand Lobe report and
  - abandons sand nourishment option
  - Recommits to planned retreat for CZMP

2008  Preparing a draft CZMP
  - implementation of planned retreat ongoing

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**Overview of BSC Coastal Management Policy**

- Planned retreat has been applied for more than 20 years, via LEP (land zoning) and DCP (development controls) provisions.

- A draft CZMP is in final stages of preparation in accordance with Act and Manual based on Planned Retreat

- Council has also adopted Climate Change parameters for a whole of council approach including flood, estuary, infrastructure and coastal management

- Council is seeking local provisions to be added to the LEP template to provide for the current coastal planning processes

- A submission to the Federal Government Climate Change inquiry has attracted a lot of attention

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**Stay Tuned**

The Draft Plan will be on Public Exhibition soon and we welcome submissions

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**References**

Bureau of Meteorology 2008 (online)


