



# Natural hazards

## BACKGROUND

Parts of the Region are subject to natural hazards and processes that can pose risks to life and property, including:

- flooding
- coastal hazards involving beach erosion, shoreline recession, coastal inundation, and slope and cliff instability
- bushfire hazard
- disturbance of acid sulfate soils
- landslip
- climate change impacts and the potential increased risks associated with sea level rise, flooding and coastal hazards.

These susceptible areas are often also subject to some of the Region's greatest development pressures.

Existing and future development within the Region faces varying degrees of risk from natural hazards. The potential for these risks to increase under climate change (including sea level rise) must be considered in any assessment of new developments within Town and Village Growth Boundaries.

In February 2006, the Council of Australian Governments announced its Plan for Collaborative Action on Climate Change. The Council of Australian Governments' Climate Change Group is now currently preparing the National Climate Change Adaptation Framework.





Adaptation is a way of preparing for a changing climate to manage the risks and maximise opportunities. Long term climate change is likely to present new challenges that will demand careful analysis and innovative solutions.







The *Coastal Protection Act 1979* now requires that councils prepare Coastal Zone Management Plans using the NSW Government's Coastal Zone Management Manual. These management plans should form the basis for the consideration of impacts on proposed rezoning, new land releases, and on existing development in areas subjected to coastal hazards. The Regional Strategy requires that, in the absence of a gazetted Coastal Zone Management Plan, councils consider the impact for any future development in coastal locations of the relevant issues as identified in the Manual.




The Floodplain Development Manual (NSW Government 2005), which covers the management of flood liable land (in accordance with section 733 of the *Local Government Act 1993*) defines the Government's Flood Prone Land

# NATURAL HAZARDS MAP



-  Major Regional Centre
-  Developing Major Regional Centre
-  Major Town
-  Town
-  Village - Inland
-  Village - Coastal

-  Region Boundary
-  State Boundary
-  Highway
-  Main Roads
-  Rail Line
-  Rivers and Creeks

-  Land potentially subject to Inundation
-  Areas of known Major Coastal Erosion
-  Existing Urban Footprint

# 6

## natural hazards



**Policy.** The primary aim of the policy is to reduce the impact of flooding on landowners and property.

The Far North Coast Region has experienced many severe floods. The Regional Strategy requires that councils incorporate processes and planning provisions in their local environmental plans consistent with the Government's Floodplain Development Manual.

Similarly, the management of acid sulfate soils must be undertaken in accordance with Government policy.

### OUTCOMES

The Strategy seeks to ensure future urban development is not located in areas of high risk from natural hazards including sea level rise, coastal recession, rising water tables and flooding.

Development in areas subject to these natural hazards is to be assessed according to the strict criteria specified in both the Floodplain Development Manual and Coastal Zone Management Manual.

The Department of Planning will support the capacity of local councils and the catchment management authority to plan for climate change.

### ACTIONS

- In order to manage the risks associated with climate change, councils will undertake investigations of lands with the potential to be affected by sea level rise and inundation to ensure that risks to public and private assets are minimised.

- Local environmental plans will make provision for adequate setbacks in areas at risk from coastal erosion and/or ocean-based inundation in accordance with Coastal Zone Management Plans. Until these plans are made by the Minister for Natural Resources, councils cannot zone land or approve new development or redevelopment in potential hazard areas, unless assessed within a risk assessment framework adopted by the council.
- Local environmental plans will zone waterways to reflect their environmental, recreational or cultural values.
- Local environmental plans will zone areas subject to high hazard to reflect the capabilities of the land.

# 6

## natural hazards



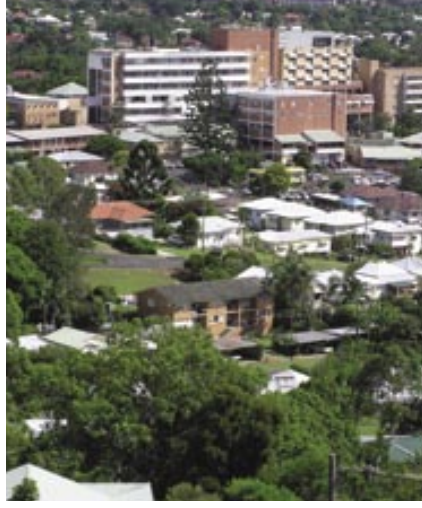
### IMPLEMENTATION OF EXISTING NATURAL RESOURCE POLICIES, PLANS AND GUIDELINES

Substantial work has been undertaken in the Far North Coast Region by agencies, councils and the community in developing natural resource management policies, plans and guidelines. Councils should ensure that their local growth management strategies, local environmental plans and development control plans maximise achievement of the principles and implementation of the recommendations in these policies and plans, in particular:

- NSW Coastal Policy and State Environmental Planning Policy No. 71 — Coastal Protection
- NSW Government's Water Quality River Flow Objectives (1999)
- Northern Rivers Catchment Action Plan
- Local stormwater management plans
- Floodplain risk management

plans prepared in accordance with the Floodplain Development Manual (NSW Government 2005)

- Management of flood liable land under the Floodplain Development Manual and in accordance with section 733 of the *Local Government Act 1993*
- Coastal zone management plans
- Existing coastline and estuary management plans
- Soil landscape mapping (Department of Natural Resources)
- Planning for Bushfire Protection (NSW Rural Fire Service and PlanningNSW 2001)
- Planning Guidelines for Acid Sulfate Soils (NSW Government 1998)



# 7

## Settlement and housing

### BACKGROUND

The Far North Coast Region is built on a network of towns and villages. Currently urban centres contain around half of the Region's population, and provide key services and facilities. These centres are linked by the Region's transport corridors and infrastructure networks. The Region is characterised by mainly detached housing (71%) with less reliance on multi-unit dwellings (22%) and other forms of accommodation (7%).

### Regional centres

Tweed Heads and Lismore are the two current major regional centres for the Region. Ballina will develop as the third major regional centre, recognising the importance of its airport and its role as a river and coastal lifestyle centre. The major regional centres, which will contain 35% of the Region's additional housing, will be reinforced as the major service and population centres.

### Towns

The major towns of Murwillumbah and Casino, and towns of Mullumbimby, Byron Bay and Kyogle support the major regional centres. These communities provide a focus for some future urban development within their service catchments.

### Villages

Surrounding the larger centres are a number of villages such as Uki, Pottsville, Brunswick Heads, Bangalow, Nimbin, Clunes, Alstonville, Wardell, Bonalbo, Woodenbong, Coraki and Evans Head, ranging in size and the types of facilities and services provided. These provide highly valued diverse lifestyles and a sense of community, reinforcing the Far North Coast as a 'region of villages'.

### Dwelling projections

The Region is faced with smaller households and an ageing population. In combination with population growth, decreasing

occupancy rates will increase the need for more dwellings. It is estimated that approximately 51 000 new dwellings will be needed to house an additional 60 400 people over the next 25 years. A 7% buffer is built into the proposed dwelling targets to address future estimated vacancy rates and tourism needs.

Housing types vary throughout the Region, with most multi-unit dwellings found in coastal areas, particularly in the major regional centres of Tweed Heads and Ballina. Decreasing occupancy rates and changing demand from traditional single detached housing to multi-unit dwelling types means that the provision of a variety of housing forms is needed in appropriate locations.

The Strategy reinforces and promotes increased housing choice by directing future urban growth to appropriate locations across the Region. Higher density living is to be encouraged around the town centres and areas of major employment.