

State Coastal Management Plan – Queensland’s Coastal Policy

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1. Introduction

The State Government seeks to protect and manage Queensland’s coastal resources, which encompass a range of ecological, economic and social values. The State Coastal Management Plan (State Coastal Plan) has been developed under the *Coastal Protection and Management Act 1995* (Coastal Act). It has the force of law as a statutory instrument and describes how the coastal zone and its resources are to be managed. The State Coastal Plan is presented in three chapters:

- Chapter 1 Vision for Queensland’s coast
- Chapter 2 How Queensland’s coastal zone is to be managed
- Chapter 3 Role agencies and groups

It applies to the coastal zone, defined in section 11 of the Coastal act as “Coastal waters and all areas to the landward side of coastal waters in which there are physical features, ecological or natural processes of human activities that affect, or potentially affect, the coast or coastal resources”. Schematically coastal zone is shown in Figure 1.

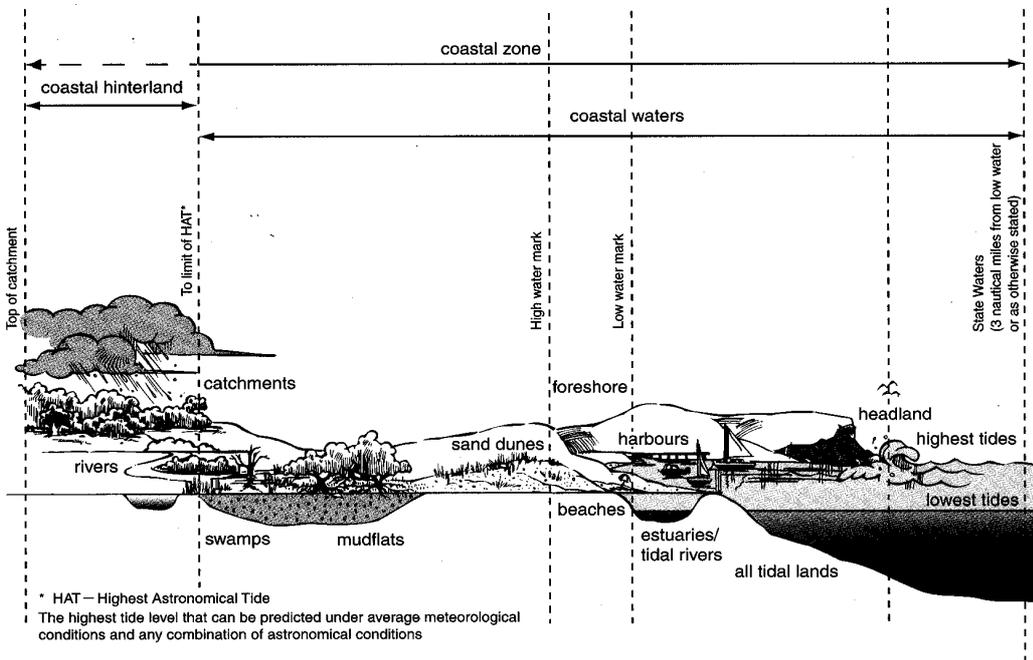


Figure 1. Coastal Zone

In the frame of this workshop, some fundamental information cited from the State Coastal Plan will be presented and discussed in relation to the local, Capricorn Coast interest.

2. Coastal management in the Queensland context

Based on statistical information it is known that Queensland has:

- coastline length of 9500 km – one fifth of Australia coast
- 1165 offshore islands and cays
- 70% coastline in public ownership
- 92 local councils – 41 have coastal boundaries, 51 are within coastal zone
- 85% of population living within coastal zone

Considering pressures on the coast, based on limited information it is known that:

- 25 of 57 river basins flowing to coast have regulated flows (e.g. dams)
- 25,000 of nitrogen and 700 kg of phosphorus from sewage treatment is discharged daily to the sea
- is high rate of invasion of exotic weed and marine species
- is “declining” population of barramundi, coral trout and mud crab
- sediments in river runoff threatens shallow water seagrass
- occurs higher incidence of cyclonic events, coastal damage from storm and other climatic changes

And finally based on limited information state of the coast is:

- Immense diversity of plants – 79 listed rare and threatened on continental islands
- Diversity of animal species – 550 crabs, 46 migratory waders, 6 of world’s 7 turtles, 10 dolphins, 18 whales, 1 dugong
- Loggerhead turtles declined by 50 – 80% since 1970s; humpback whales increased from 100 in 1962 to 2500 in 1996
- Coastal catchments – only 2.5% pristine; razing on 85%, urban are less than 2% and growing
- Declining water quality indicated by algal blooms
- Only freshwater wetlands in remote areas not modified
- Acid sulphate soils cover an estimated 2.3 million ha on coast

The coastal zone contains a number of different, but related, resources with distinct values. State Coastal Plan recognise 15 different coastal resources such as: coastal use and development, physical coastal processes, public access to the coast, water quality, Indigenous Traditional Owner cultural resources, cultural heritage, coastal landscape, conserving nature, coordinated management, and research and information.

With significant growth projected for the majority of coastal zone, urban development in the coastal zone is a major challenge. From 1995 to 2000, the second fastest population growth in Australia occurred in Queensland, which increased by 9.2%. The most significant proportion of this growth was experienced in coastal centres including Brisbane, the Sunshine Coast and Gold Coast. Strong population growth was also recorded elsewhere in Queensland’s coastal zone. Many local governments along the coast face the challenge of accommodating rapid urbanisation and balancing demands associated with economic development, social wellbeing of the community and maintenance of health and sustainable environment. Increased development and population growth on the coast and adjacent areas also place human life and property at risk from the effects of coastal hazards, including storm tides.

The predicted global climate changes due to enhanced greenhouse effects will impact upon the coastal environment. Queensland may be vulnerable to the predicted changes in climate and its associated impacts, including sea level rise. Research into change, assessments of impacts and vulnerability, and planning to adopt will be an important long term management strategy. Some aspects of research connected with beach protection and its management, and cyclonic activities were presented in other papers during this seminar.

The main goal of the State Coastal Plan is finally to establish a coordinated and integrated framework and build on existing strengths a set policies where gaps currently existing. Finally the State Coastal Plan provides a common basis for decisions and actions and will, in the short to medium term, be reflected in other plans and management activities.

3. Coastal management issues

The State Coastal Plan identified ten topic areas that requires more detailed implementation of the principles. These topic are coastal use and development, physical coastal processes, public access to the coast, water quality, Indigenous Traditional Owner cultural resources, cultural heritage, coastal landscapes, conserving nature, coordinated management, and research and information.

3.1 Physical coastal processes

Because the main topic of this workshop is connected with beach protection and restoration, lets look with some details into the topic: physical coastal processes. The main outcome of this topic is that the coast is managed to allow for natural fluctuations to occur, including any that occur as a result of climate change and sea level rise, and provide protection for life and property. The following policies are issued:

- Adaptation to climate change, as it has significant impacts on the coastal zone and human settlement
- Erosion prone areas defined as areas that are vulnerable to erosion or encroachment from tidal waters within a 50 years planning cycle
- Shoreline erosion management
- Coastal hazards that include events such as storm tides, cyclone effects and related inundation
- Beach protection structures including seawalls, groynes and artificial reefs with their significant impact on coastal processes.

Adopted policy stated that construction of structures for the propose of beach protection (including artificial reefs, banks, wrecks, breakwaters and groynes) will only be approved where:

- (a) there is demonstrated need in the public interest, and
- (b) comprehensive investigation has been carried out and it can be demonstrated that:
 - (i) there would be any significant adverse impacts on the longshore transport of sediment, and
 - (ii) there would be no increase in coastal hazards for the neighbouring foreshore

4. Role of some agencies and group

The leading agency in coastal management is the Environmental Protection Agency (EPA) which coordinates the preparation of the coastal plans, administers the licensing and enforcement of coastal permits, and provides advice to local government and other agencies and persons regarding management best practice.

Local government is responsible for preparing planning schemes taking into account matters of state and regional interest. Thus the local government undertake the following:

- Funding, construction and management of coastal management infrastructure
- The acquisition and management of coastal lands to protect coastal resources
- The management of waterways in the coastal zone
- The funding, construction and management of water quality management infrastructure
- Cleaning of foreshore and waterways
- Managing public access to the coast

Community groups and individuals commit time and effort to developing strategies such as integrated catchment management plans, natural resource management strategies and to on-the-ground works and activities such as rehabilitation projects that contribute to managing coastal areas. In some cases, the State and Commonwealth governments support these efforts through funding programs such as Coastcare and Coast and Clean Seas.

5. Regional overviews

The Queensland coast has been subdivided into eleven coastal regions for the purpose of preparing regional coastal plans. The regions' boundaries are based on coastal local government boundaries. The eleven coastal regions are illustrated in Figure 2. The Capricorn Coast region extends from the northern boundary of Broadsound Shire to the southern boundary of Fitzroy Shire. The coastline includes a diverse range of landforms ranging from relatively high-energy sandy coasts in the southern Shoalwater peninsula and Keppel Islands, to

extensive sheltered embayment and estuarine areas. The more sheltered areas contain extensive mangrove stands, mudflats and seagrass beds. Scenic rocky headlands are well represented by sites such as Double Head, Cape Townsend, Cape Manifold and many islands of the Keppel Group.

The largely undeveloped nature of much of the region’s coastline provides an important contrast to most of the more developed southern coastal regions of Queensland.

The local governments in the region are Fitzroy, Livingstone, Rockhampton and Broadsound Shire Councils. They have existing planning schemes and are required to prepare new planning schemes under the *Integrated Planning Act 1997* by 30 March 2003.

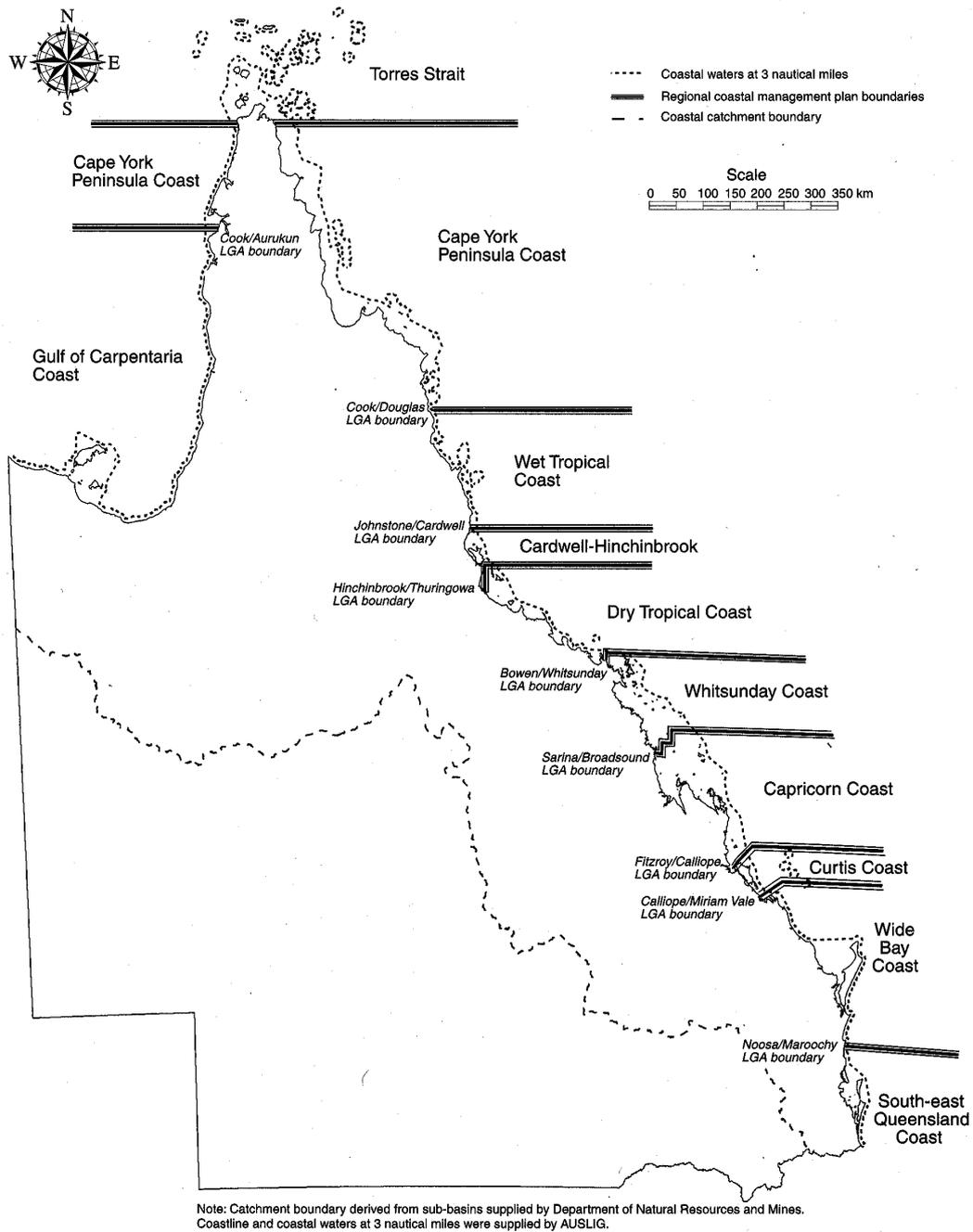


Figure 2. Queensland: coverage of regional coastal management plans

5.1 Coastal resources of Capricorn Coast

The Shoalwater Peninsula has received national recognition for both its natural and cultural heritage values, being the focus of a major Commonwealth Commission of Inquiry in 1993-94, which found that Shoalwater Bay should remain a military training area, with certain access rights provided to Indigenous groups and the conservation of natural and cultural values assured. The region includes significant freshwater wetlands, seagrass beds, tidal mudflats and mangrove habitats supporting substantial population of dugongs, marine turtles, shorebirds and commercially important marine and estuarine species. Shoalwater and Corio Bays are listed under Ramsar Convention and comprise the southernmost wilderness area on the east coast.

The Fitzroy River, which enters the coast at the southern extent of the region contributes extensive riverine floodplains and tidal wetlands to the landscape. The Fitzroy River plays a major role in the features of the coast, especially during flood events. On these occasions large volumes of sediment can be deposited up to 30 km north and east of the estuary, having a dramatic impact on the coastline, fringing reefs and islands.

The Bayfield area, to the south of the Shoalwater training area, has an extensive parabolic dune system. This landform offers diverse vegetation, including heathland and stringybark woodlands and significant freshwater wetland habitat is situated behind the dunes draining to Corio Bay.

Indigenous Traditional Owner and South Sea Islander cultural resources are common throughout the region and many are under threat due to the pace of development. Important cultural heritage values and resources are also associated with historical processes such as coastal exploration, coastal navigation, pastoralism, mining, the sugar industry, tourism and holiday resorts.

Use of the coast varies greatly within the region. In areas such as Yeppoon and Emu Park there is a high level of development, with residential and commercial facilities fronting the beaches and foreshores in some areas. A major nature-based tourism exists in the region, with specific emphasis on the area just north of Yeppoon and the Keppel Islands. Experiences offered include recreational fishing, scuba diving and camping. A local resort includes built wetlands that provide a supratidal waterbird habitat.

There is also considerable recreational use of waterways, bays and open waters. In the less developed areas, the prominent landforms and waters along the coast are often associated with recreational or conservation values that are highly regarded by the community.

Beef cattle grazing is the dominant rural land use, with some horticulture (e.g. pineapples, tropical fruits) occurring near Yeppoon. Commercial fishing targeting crabs, prawns, scallops, and barramundi is a significant industry. Port Alma has facilities for the export of local beef and salt from nearby salt-production facilities and import of materials for explosive manufacture.

5.2 Key coastal management issues of Capricorn Coast

The State Coastal Plan presents 23 important coastal management issues. Some of them are:

- Threats to water quality from agricultural and urban sources
- Expansion of residential development along the coastline, with associated adverse impacts on coastal resources
- Sustainable extraction of water from coastal streams and underground aquifers
- Impacts of acid sulphate soils
- Cyclone impacts and storm tide inundation
- Preservation of Indigenous Traditional Owner cultural resources from inappropriate access or use, including appropriate management of Indigenous Traditional Owners knowledge and information
- Identification and maintenance of cultural heritage resources (values, places and items)

6. Conclusions

Presented citations from the State Coastal Plan shows that the Queensland Government addressed the major challenges associated with protecting our coast for future generation. This Plan combines in one Coastal Act a vision of coastal management in several topics with their principles and policies. The continuity of this process

will be implementation of the State Coastal Plan through the actions so the decision makers will be required to take into account the aspects of this Plan relevant to the particular situation.

Finally during our workshop time only some elements of the Plan were discussed. The coastal management outcomes, principles or policies cannot be read in isolation but as an integrated package in the context of the Coastal Act.

7. References

Queensland Government, Environmental Protection Agency. State Coastal Management Plan – Queensland's Coastal Policy. Document prepared by Coastal Planning, EPA, August 2001 p 101.