

# Coast Protection, Development and Coastal Biodiversity

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# Saltmarsh: an extensive problem for Biodiversity and Planning Law



Linked ecosystems are precisely adapted to levels of tidal inundation: threatened by sea level rise

High biodiversity values: rare plant associations, threatened plants and animals, shorebirds, 'SA the samphire state'

Seagrass/ mangrove / samphire complex essential as a fish nursery and for nearshore water quality

Significant carbon sink

# Saltmarsh – the Squeeze

- \* Existing settlements are threatened by storm tides
- \* Sea level rise poses questions: defend, retreat or re-design?
- \* Ecosystems need salt water circulation and the space to retreat over time
- \* Existing legal tools could perhaps solve this problem if the saltmarsh complex is perceived as valuable, (optimistic view) and retreat buffer zones secured.



# Coast Protection Act, 1972

- \* The Act, and revisions, created a board with 6 members
- \* Nominees of:
  - DEWNR,
  - DPI (Harbours & Marine),
  - Tourism SA.
- \* Expertise in:
  - Local Government
  - Physical processes at the coast
  - Biological processes at the coast

Historical version: 6.11.2008 to 31.1.2010

South Australia

## Coast Protection Act 1972

An Act to make provision for the conservation and protection of the beaches and coast of this State; and for other purposes.

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# Does the C.P. Act address Biodiversity?

## \* Duties of the Board

- \* protect the coast from erosion, damage, deterioration, pollution and misuse
- \* restore any part of the coast that has been subjected to erosion, damage, deterioration, pollution or misuse
- \* develop any part of the coast aesthetically, or to improve it for those who use and enjoy it
- \* manage, maintain and develop those coast facilities that the Board is responsible for
- \* report to the Minister where required
- \* carry out, or be involved in, research into the protection, restoration or development of the coast.

# Activities of the Coast Protection Board

- \* **Protection: preventing /mitigating coastal flooding and erosion, (seawalls, flood levees, sand, planned erosion buffers)**
- \* **Advice to decision makers on development applications, (development applications within a 'coastal zone' are referred to the Coast Protection Board under Regulation 24 and Schedule 8 of Development Act regulations)**
- \* **Research and monitoring (beach profiles, statewide coastal landform and vegetation surveys, recent detailed conservation and threat assessments with NRM Regional Boards)**



# 4,500km of coastline







# Development Act 1993

- \* **Development plans the key documents: zones, maps, objectives and principles have been defined, and against which development applications are assessed.**
- \* **Regional Coastal Areas Amendment by the Minister, September 1994. This established statewide policies to**
  - \* **1. Protect sensitive coastal features**
  - \* **2. Prevent development in places of coastal hazard**
  - \* **3. Ensure that relevant development applications are referred to the Coast Protection Board**
- \* **As Council plans were revised, 'coastal zones' were defined and mapped following statewide policies.**

# Coastal Zones

**In keeping with the Ministers 1994 Amendment, there has been a continuing process of getting land with the following features into coastal zones:**

- \* Coastal landforms and habitats, sites of scientific and heritage importance; coastal landscapes of high scenic quality**
- \* Buffer zones separating development from sensitive coastal and marine features**
- \* Areas exposed to coastal hazards.**

**Creating appropriate coastal zones and objectives is a council by council task, and is well advanced. 'Coastal Zone' designations ensure applications are referred to CPB.**

# C.P.B. Advice on Development Applications

- \* Applications are discussed within DEWNR by a planner, an engineer and a scientific officer: an important piece of day to day integration, and a significant part of the state's professional capacity in coastal management.
- \* The context is the development plan and CPB policy; this policy has a link at
- \* [http://www.environment.sa.gov.au/Coastal\\_Marine/Coast\\_Protection\\_Board/Policies\\_strategic\\_plans](http://www.environment.sa.gov.au/Coastal_Marine/Coast_Protection_Board/Policies_strategic_plans)

# Coast Protection Board advice

## POLICY ON COAST PROTECTION AND NEW COASTAL DEVELOPMENT



THE POLICIES HEREIN WERE ENDORSED BY THE  
SOUTH AUSTRALIAN GOVERNMENT  
ON 21 MAY 1991

COAST PROTECTION BOARD  
SOUTH AUSTRALIA

1. Annual audit of the results of CPB advice since 2004, shows that councils and DAC comply with the advice on c.85% of applications.
2. Half of the non-complying decisions relate to the coastal hazard criteria. The policy on coastal flooding includes a component to allow for sea level rise, adopted in 1991.
3. The CPB believes that its power of direction should be extended to include coastal hazards, to avoid future costs of protection.

# Ceduna Waters, April 2008

Before

After





# Restoration following illegal biodiversity loss is hard and slow

- \* **Development on private land behind the dunes at Ceduna Waters had been agreed by Council. Demolition of the cliff-top dunes (<6m high) was not. The dunes were (appropriately) zoned 'conservation', and were partly unalloted Crown land.**
- \* **The illegal removal of dunes was taken to the Environment Court. Conciliation resulted in agreement on partial restoration of the landform and re-planting.**
- \* **4 years after demolition little to no restoration of the dunes has been done The flat site has been invaded by (different species) native vegetation.**

# Surf Pro event and Music Carnival at Vivonne Bay, K.I. Nov 4,5 2011

- \* This took place on the beach and adjacent Crown reserves at Vivonne Bay.
- \* C.4,500 people parked and/or camped 4-500 m. inland on Sealink owned land and walked on roped off made tracks through the dunes.
- \* 2 development applications: a viewing platform on the dune, and paths and steps on the foredune. The CPB viewed the major issues related to dune and beach management, as well as possible disturbance of shorebirds (Hooded Plovers).
- \* DENR staff reported favourably on dune and beach management issues. (Birds Australia report on HP not seen)





