



Appendix F: State and territory coastal governance arrangements

Extract from Australian Network of Environmental Defender's Offices submission¹

Tasmania
<p>Tasmania does not have specific coastal protection legislation, or a single coastal management authority. Responsibility for coastal management falls to a range of state and local government agencies under the general framework provided by the <i>State Coastal Policy 1996</i>. A State Coastal Advisory Committee was established in 1998 but has not met since 2001.</p> <p>The <i>State Coastal Policy 1996</i>² was enacted to provide a consistent, state-wide approach to coastal management and applies to all State waters and land within one kilometre inland of high-water mark. The Policy comprises three overarching principles:</p> <ul style="list-style-type: none">▪ The need to protect both natural and cultural values of the coast▪ The need for sustainable use and development of the coast▪ The need for shared responsibility in the management and protection of the coastal zone. <p>The Policy also sets out a range of outcomes for each of these principles. These outcomes state that the coastal zone will be managed to “<i>protect ecological, geomorphological and geological coastal features and aquatic environments of conservation value</i>” (clause 1.1.2).</p> <p>The Policy provides guidance for local governments regarding the coastal management issues that should</p>

1 ANEDO, *Submission 73*, pp. 8-17.

2 The State Coastal Policy 1996 is currently subject to review. A draft policy was released in 2006, but later withdrawn. A new draft policy is expected to be released by the end of 2008.

be taken into account in decision-making. Before endorsing any new or amended planning scheme, the Resource Planning and Development Commission must be satisfied that the scheme is in accordance with the State Coastal Policy. For older planning schemes, if there is an inconsistency between a provision of the State Coastal Policy and the planning scheme, the State Coastal Policy will prevail. The Policy provides for a precautionary approach to be taken when assessing applications for use and development in the coastal zone and for coastal developments to be directed to locations which will minimise their environmental impact. The Policy requires suitable urban and residential areas, areas of special value, important wetlands and coastal transport routes to be identified in planning schemes. The design and siting of development must also be subject to planning controls “to ensure compatibility with natural landscapes”.

The Policy also provides for areas subject to coastal hazards such as storm surge, erosion and sea-level rise to be identified and managed (clause 1.4.1) and for policies to be developed to respond to the potential effects of climate change on use and development in the coastal zone (clause 1.4.3).

It is an offence against the *State Policies and Projects Act 1993* to fail to comply with a provision of a State Policy, however the policy is a broad document primarily intended to provide a framework for coastal planning rather than to be an enforceable document. Implementation of the policy is generally achieved through individual planning schemes, enforced by local governments under the *Land Use Planning and Approvals Act 1993*. However, given the broad nature of the statements in the Policy, it has proven difficult to enforce in practice and has been subject to litigation on numerous occasions. In a recent decision, the Supreme Court held that local governments are bound to give effect to the policy and achieve its outcomes, but recognised that many of the statements in the policy are not prescriptive enough to be directly enforced.³

A review of the State Coastal Policy in 2004 also found that lack of technical resources and operational guidance results in many Councils not adequately implementing the Policy. To address this concern, the State government has produced a number of technical reports to assist with the identification of natural values and areas at risk from coastal hazards. In particular,

- The Coastal and Marine Branch of the Department of Environment, Parks, Heritage and the Arts has released GIS mapping tools for coastal vegetation, geomorphic values and fauna habitat. They have also released indicative mapping of coastal areas vulnerable to climate change and sea-level rise.⁴
- The three regional NRM bodies collaborated to produce a set of Estuarine, Coastal and Marine Indicators to assess natural resource conditions in the coastal zone.⁵
- The Local Government Association of Tasmania has released a Climate Change Toolkit comprising case studies to help local governments to address climate change issues.

In addition to this assistance, one of the key initiatives identified in Tasmania’s **draft *Climate Change***

3 *St Helens Landcare and Coastcare v Break O’Day Council* [2007] TASSC 15

4 Sharples, C., 2004. *Indicative mapping of Tasmanian coastal vulnerability to climate change and sea level rise: Explanatory Report*, Department of Primary Industries, Water and Environment.

5 *Trialing NRM Resource Condition Indicators in the Coastal Zone – Final Report, May 2006*

Strategy is to:

Incorporate climate change issues including coastal vulnerability, the impacts of sea level rise and storm surge risk, in planning schemes, and develop practical planning tools to assist local government in taking predicted climate change impacts into consideration.

It is clear that local governments will remain primarily responsible for assessing and managing coastal uses and development in the future.

Victoria

The current agency that addresses coastal management in Victoria is the **Victorian Coastal Council**, which is appointed by the State Government in accordance with the ***Coastal Management Act 1995***. Under this Act, the VCC has an array of functions; one of which is the responsibility to undertake statewide strategic coastal planning and another being the responsibility to prepare and publish guidelines for the planning and management of the coast. In order to address these responsibilities, the VCC developed the *Victorian Coastal Strategy 1997*, which was subsequently superseded by the ***Victorian Coastal Strategy 2002*** (the Strategy). This Strategy aimed at implementing Integrated Coastal Zone Management, and providing guidance on catchment to coast integration.

With amendments currently being made to the **draft 2007 Victorian Coastal Strategy** Victorian coastal management is currently in a state of flux. In April 2007, an invitation for comments on the newly developed 2007 Draft Victorian Coastal Strategy was advertised, with the VCC receiving 174 submissions. These submissions are in the process of being analysed and incorporated into the development of the final Victorian Coastal Strategy. In a recent media release the Chair of the VCC, Ms Libby Mears, stated that the redrafted strategy hopes to present “a long-term vision to ensure appropriate planning decisions which protect the aesthetic, cultural and environmental values of the coast”, and seeks to achieve this by “addressing the major challenges posed by climate change and development pressures of the ‘seachange’ phenomenon.”⁶ The EDO Victoria formulated a submission that outlined a number of key recommendations the 2007 Draft Strategy. Among these was a recommendation for an increased emphasis on integrated management of the coast on a state-wide scale. Additionally, EDO Victoria believed there was a need for a stronger and clearer focus on climate change impacts. Only once the amended strategy is released will it be apparent whether such recommendations will be put into practice.

The ***Planning and Environment Act 1987*** provides that each local government is to have a **municipal planning scheme**, which affects all landowners including the Crown. The development of such planning

6 Media Release From the Victorian Coastal Council, *Sea level rise key in new draft coastal strategy*, Friday 9 November 2007. Available at: <http://www.vcc.vic.gov.au/pdf/mediareleasedraftvcs.pdf>

schemes “provide a mechanism for integrating coastal development, management and outcomes by linking across public and private land”⁷ Local governments may make additional coastal management policies under the powers conferred by the *Local Government Act 1989*, such as;

- Foreshore management plans
- Open Space and recreation plans
- Local Agenda 21 and local sustainability plans
- Greenhouse strategies
- Stormwater and domestic waste water management plans
- Asset and infrastructure management plans
- Waste and litter management plans.

These planning schemes were to be implemented to help manage the “change that will inevitably take place across the coast”⁸ in relation to population growth and subsequent urbanisation of coastal areas. However, as illustrated by the *Coastal Spaces and Landscape Assessment Study: State Overview Report* there has been limited implementation of the schemes. On 27 September 2006, this study was released by the Minister for Planning and provided a comprehensive baseline assessment of visually significant landscapes along the Victorian coast. The study attempted to provide a guideline “on how management and protection of these important landscapes can be better achieved through planning schemes”⁹. The study discovered that of the 87 settlements within two-kilometres of Victoria’s coastline, only 18% have included strategic settlement plans into local planning schemes. The EDO Victoria, in its submission regarding the draft 2007 Draft Strategy, highlighted a need for time limits to be included regarding the compulsory implementation of coastal settlement frameworks into local government planning schemes to better assist in establishing some consistency throughout the coastal zone.

Queensland

The *Coastal Protection and Management Act 1995* is the legislation which protects and manages the coastal zone in Queensland, primarily through Coastal Management Plans. The **State and Regional Coastal Management Plans** which sit under the Act and contain most of the detail have chapters on conserving nature, which include broad “coastal management outcomes” and principles and policies for protecting coastal resources, values and managing pressures on those resources. In practice these documents have been applied to regulating coastal development rather than coastal management or rehabilitation.

The **South East Queensland Regional Coastal Management Plan**, maps areas of coastal biodiversity significance and requires local town planning schemes to identify these areas as valuable features and include measures for their conservation and management. Criteria for development assessment are listed,

7 Australian Local Government Association website. Available at: <http://www.alga.asn.au/policy/environment/coasts/roles/>

8 Australian Local Government Association website. Available at: <http://www.alga.asn.au/policy/environment/coasts/roles/>

9 Department of Sustainability and Environment Victoria. Available at: <http://www.dse.vic.gov.au/DSE/nrenem.nsf/LinkView/F3C0CB8C21FD0964CA257157001B4D40C18B7E0199670F29CA256F5E0021B6C8>

and include directions such as that development does not occur where it will result in the loss, degradation or fragmentation of areas of coastal biodiversity.

The State and Regional Coastal Plans are treated as State Planning Policies for the purposes of the *Integrated Planning Act 1997* (IPA), meaning they must be taken into account by an assessment manager (usually the local Council) when assessing development applications. However, this means that Council must only “have regard to” the documents, and in practice they are frequently undermined. To be more effective, State and Regional Coastal Management Plans must be given an elevated status under IPA so that its provisions must be implemented. The State and Regional Plan are also considered a “State Interest” when developing local town planning schemes, meaning that the Planning Minister can require the State Coastal Plan to be reflected in local planning schemes and must also consider the State Plan prior to designating land for community infrastructure. However in practice, the details of the State or Regional Plans are not clearly and thoroughly implemented in local planning schemes as part of the process of doing the state interest check on draft local planning schemes.

Provisions of the **State Coastal Management Plan** address climate change issues. Section 2.2.4 of the State Plan deals with storm tides, cyclone effects and related inundation and recognises these as ‘coastal hazards’. The State Plan requires that the associated risks of coastal hazards are minimised, including by carefully considering development in coastal risk areas and wherever possible retaining those areas undeveloped. However, until Councils are obliged to comply with the State and Regional Plans (rather than simply “have regard to” them), these provisions will continue to be ineffective.

Western Australia

WA does not have special purpose coastal protection legislation assigning responsibility to a particular agency or Minister. Instead, advice and strategic policy on the planning and management of the WA coast is provided by the Coastal Planning and Coordination Council, a Committee of the **Western Australian Planning Commission**.

The draft *Coastal Zone Management Policy for Western Australia (2001)* provides a ‘whole-of-government’ policy framework for coastal planning, management and protection. It sets out, in broad terms, coastal zone management objectives, including environmental, community, economic, infrastructure and regional development objectives. It also contains government policies for planning and management of the coastal zone.

The *Statement of Planning Policy No 2: Environment and Natural Resources Policy* sets out the broad environment and resource management policies for sustainability. It includes measures to “[s]afeguard and enhance areas of environmental significance on the coast ... [e]nsure use and development on or adjacent to the coast is compatible with its future sustainable use for conservation, recreation and tourism in appropriate areas [and to] [t]ake into

account the potential for impacts from changes in climate and weather on human activities and cultural heritage including coastal and urban communities, natural systems and water resources.” (cl 5.1)

The **Statement of Planning Policy No. 2.6: State Coastal Planning Policy** applies to the coast state-wide and is intended to complement SPP 2 and draft Coastal Zone Management Policy by addressing the more operational aspects of coastal planning. The policy provides high order guidance for decision-making on coastal planning matters and seeks to inform and guide the WAPC in undertaking its planning responsibilities. It also aims to guide local governments, and other agencies, about those aspects of State planning policy concerning the protection of the coast that should be taken into account in planning decision-making. SPP 2.6 is to be implemented through the preparation of regional and local strategies, plans and statutory planning schemes. It sets out requirements for local governments developing a coastal planning strategy by outlining what should be taken into account in the preparation of the strategy and the types of requirements and guidelines that must be included in the strategy itself. The policy encourages partnership with the broader community in this process. More specifically, SPP 2.6 provides guidance for determining a set-back, which is generally to be 100m from the horizontal setback datum (cl 2.3).

The **Coastal Planning and Management Manual (2003)** provides more detailed guidance on coastal planning and management for community groups and local government. It provides further detail on the types of coastal strategies and plans that can be developed and sets out coastal planning and management principles (e.g. sustainable management, identifying limits of acceptable change, maintenance of ecosystem integrity, consultation, minimal intervention etc).

In addition, WA has **Development Control Policies**. Outside the Perth Metropolitan Region, coastal planning in Western Australia has been largely guided by the WAPC’s **Development Control Policy 6.1 Country Coastal Planning Policy**. DCP 6.1 operates in a subordinate capacity to the SPPs. It provides general development principles, including requirements to the separation from the coast by a foreshore reserve, public access to the foreshore, and that development should not reduce the visual amenity of the foreshore (cl 3.1). It sets out principles adopted by the WAPC for the allocation of coastal land, for example, *“to give priority to coastal dependent developments over non-coastal dependent developments”* (cl 3.2.1). It also provides guidelines for set-backs (generally 100m) and the preservation of the ecology, visual amenity, and soil and water quality of the coastline. Other WAPC Development Control Policies relevant to the coast are:

- 1.8 Canal Estates and other Artificial Waterway Developments,
- 2.3 Public Open Space in Residential Areas and
- 4.2 Planning for Hazards and Safety.

In addition, many coastal management plans and strategies for specific areas and regions have been prepared by the WAPC, or by local governments, and a Regional strategy for the Perth metropolitan coastline is currently under preparation.

Northern Territory

The overarching policy direction for coastal zone management in the NT is provided by the **Northern Territory Coastal Management Policy**. The policy is designed to guide management, planning and conservation in the NT coastal zone. Initially developed in 1985, this policy is currently under review.

The **Darwin Harbour Regional Plan of Management (DHRPM)** area covers Port Darwin, Shoal Bay and their catchments. The following five goals were identified by the DHRPM in order to achieve sound management of the Darwin Harbour region:

- To maintain a healthy environment;
- To support the sustainable recreational use and enjoyment of the environment;
- To encourage ecologically sustainable development;
- To protect cultural and heritage values; and
- To foster community ownership and participation in management.

A report about the status of the DHRPM was released in September 2007 by the Darling Harbour Advisory Committee. This report noted that “while the expectations remain high that the Plan will be implemented, the committee has been discouraged by a lack of funding and lack of commitment by the government to support the Plan as endorsed by Cabinet in early 2004”¹⁰. This indicates that the implementation of some of the objectives of the DHRPM in 2005-06 has been hampered by a number of factors. There were additional difficulties implementing the Plan as the “role and responsibility of DHAC as well as the status of the Plan continue to be unrecognized in legislation”¹¹. A report by the committee is due to be released regarding the progress of the implementation of those objectives contained in the DHRPM.

The *Integrated Natural Resource Management Plan for the Northern Territory* was released in March 2005, and was based on the following three governing principles:

- “It should promote and support ecologically sustainable development;
- It should apply the precautionary principle in the absence of sound data on which to base planning decisions; and
- It should promote and support adaptive management.”¹²

10 2005-2006 Status Report on the implementation of The Darwin Harbour Regional Plan of Management. Available at: www.nt.gov.au/nreta/water/dhac/pdf/dhac_status_report.pdf

11 2005-2006 Status Report on the implementation of The Darwin Harbour Regional Plan of Management. Available at: www.nt.gov.au/nreta/water/dhac/pdf/dhac_status_report.pdf

12 Integrated Natural Resource Management Plan for the Northern Territory. Available at: <http://nrmbnt.org.au/files/inrmp/INRMPlanMarch2005.pdf>

The establishment of the three core governing principles demonstrates understanding of the importance of those factors integral to natural resource management. The Natural Resource Management Board (NT) Inc. is the regional body appointed the responsibility of developing and implementing the Plan. The Plan has been criticised as it “lacks detailed information about the role of stakeholders in the implementation and monitoring process.”¹³

The Northern Territory Marine Protected Areas Advisory Committee was established to provide stakeholder feedback to the Department of Natural Resources Environment & the Arts on the development of a **draft Northern Territory Marine Protected Areas Strategy**. This Strategy aims to “set out the legislative, scientific, planning and consultation framework” for how new Marine Protected areas will be identified. This strategy is an indication that management of the Northern Territory is beginning to incorporate an integrated approach into coastal zone management. This Strategy is currently being developed.

Other broad conservation plans such as the *Draft Northern Territory Parks and Conservation Masterplan*¹⁴ may be relevant for the coast, but due to recent comments from government, there is some suggestion that this plan will not be implemented due to insufficient resources.

The *NT Environmental Impact Assessment Guide – Greenhouse Gas Emissions February 2007* aims to “assist proponents in providing the information needed by the Environmental Protection Agency Program to assess the impact of greenhouse gas emissions from proposed projects during assessment under the *Northern Territory Environmental Assessment Act 1994*. It identifies that proponents of projects should give particular consideration to the following five risks associated with the impacts of climate change;

- “increasing average temperature and evaporation rates;
- variation in rainfall and the incidence of floods;
- sea level rise;
- increased frequency and intensity of cyclones and storm surge levels; and
- altered distribution of pests and disease.”¹⁵

South Australia

The *Coast Protection Act 1972* was created for the specific purpose of establishing a regulatory statutory body – the **Coast Protection Board** (CPB) – and outlining its powers, requirements and responsibilities. Under section 6 of the Act, the CPB is the statutory authority responsible for the management of the states

13 Hilton L. 2007, ‘Structuring South West’s Natural Management Plan’. Available at http://www.southwestnrm.org.au/publications/downloads/ConsultancyReport_StructuringSWNRMPPlan_11-03-07.pdf

14 Northern Territory Parks and Conservation Masterplan, Summary Paper September 2005. Available at www.nt.gov.au/nreta/parks/masterplan/pdf/summary_paper.pdf

15 Available at: <http://www.nt.gov.au/nreta/environment/greenhouse/pdf/ghgemissions.pdf>

coastline and administration of the Act. The CPB is particularly interested in establishing whether land and any development on it is likely to affect, or be affected by coastal processes including storm surge flooding and short or long-term changes in the position of the coastline. The CPB assesses the impact of development and rezoning on coastal qualities such as conservation of vegetation/reserves/beaches. The CPB will assess the extent of impacts, particularly effects on natural coastal processes.

In 1992, the CPB established South Australia as the first State in Australia to adopt planning policies and standards to minimise the risk to coastal development by climate change-induced sea level rise. The ***Coastline: Coastal erosion, flooding and sea level rise standards and protection policy (1992)***, which has been included in the council-wide provisions of development plans, states that:

- Development should not be approved where building sites are lower than a height determined by adding 0.3 m (for 50 years of sea level rise) to the 1-in-100 year storm surge level and making an adjustment (where appropriate) for land level changes to 2050.
- For commercial or habitable buildings, floor levels should be no less than 0.25 m above this minimum site level.
- Development should not be approved unless it is capable, by reasonably practical means, of being protected or raised to withstand a further 0.7 m of sea level rise. (This condition allows for a further sea level rise of 0.7 m from 2050 to 2100 for a total sea level rise of 1 m to 2100).

This policy has been since incorporated into development plans and planning strategies by state and local government.

More recently, the ***Living Coast Strategy for South Australia (2004)*** was devised to formally set out the State Government's environmental policy directions for the sustainable management of these environments. This was in recognition of the significant pressure Australia's coastal, estuarine and marine environments are under following the 'Review of the Management of Adelaide Metropolitan Beaches' (Government of South Australia 1997), and the *Framework for a National Cooperative Approach to Integrated Coastal Zone Management* (2003) developed by the National Resource Management Ministerial Council. The SA Strategy follows from and builds on the State Government's previous policy document, *Our Seas and Coasts: A Marine and Estuarine Strategy for South Australia 1997*. The strategy encompasses a wide range of environmental initiatives and programs and sets out the policy directions that the State Government will be taking over the following five years to help protect and manage South Australia's coastal areas, estuaries and marine ecosystems. In addition, there is the proposal that there be, in conjunction with local government and the Commonwealth, the development of a clear policy for Government to manage sea-level change.

Due to concerns about sand erosion, tidal drift, seawalls and the need for beach nourishment, the Department for Environment and Heritage, on behalf of the Coast Protection Board initiated a review of the management of Adelaide's metropolitan beaches in 2000, and based on the recommendations of this report developed an innovative strategy for managing Adelaide's beaches called ***Adelaide's Living Beaches: A Strategy for 2005–2025***. The Government of South Australia endorsed the strategy in November 2005. Policy makers recognise that climate change is likely to gradually alter the forces that act

on the coastline, and so they must allow for additional supplies of sand to maintain beach width and provide for strengthened dune buffers. It is anticipated that the main effects of climate change along the coast of South Australia will be sea level rise and changes to weather and hence wave conditions. The vast majority of the explanation and policy on the effects of climate change on the coast of SA in this document is simply a re-iteration of the Coastal Protection Board's policy developed in 1992 (*Coastline: Coastal erosion, flooding and sea level rise standards and protection policy* 1992).

The ***Marine Planning Framework for South Australia (2006)*** incorporates elements of 'South Australia's Strategic Plan' (Government of SA 2004) regarding sustainable development, and *Living Coast Strategy for South Australia*. The framework will require a statutory basis from which to operate, which will be provided through a proposed revision of the ***Coast Protection Act 1972***, and will interact with the ***Development Act 1993*** and the ***Natural Resources Management Act 2004***. The Planning Framework does not contain any specific climate change provisions.

While many of the other policies in this area are purely directional and often aspirational, the Marine Planning Framework (2006) represents a practical embodiment of these and other policy directions that have been incorporated into development legislation. The overarching goals, objectives and strategies from the marine planning zones will, as appropriate, be incorporated into the *Planning Strategy for South Australia* under the *Development Act 1993*. In particular, the Better Development Plans project currently being undertaken by Planning SA will strengthen the linkages between the *Planning Strategy for South Australia*, Marine Plans and Development Plans. This will assist in ensuring that the strategies and objectives of Marine Plans are incorporated into the relevant Development Plans. The Government anticipate that existing responsibilities and jurisdictions of management agencies will remain, but the resource management policies, strategies, and plans will be progressively amended to manage development and use consistent with the objectives applied to relevant zones.

The ***Estuaries Policy and Action Plan (2005)*** provides a bridge between DEH coastal policy, and the realm of the Department of Water, Land and Biodiversity Conservation, which deal with the riparian part of the catchment–coast–ocean continuum. The broad vision of this policy document is that of the provision of '*healthy estuaries for the benefit of present and future generations*'. There are 5 key outcomes identified as requisite to achieving this vision:

- 1) Better management of estuaries for economic, social and environmental sustainability
- 2) Better development planning tools are established to aid decision making for social and environmental sustainability
- 3) The conservation values of estuaries are protected
- 4) Greater community understanding and involvement
- 5) Comprehensive research and monitoring of estuaries.

With respect to estuarine environments, DEH has (or is in the process of) developing 'Estuaries Information Packages' (EIP) for each of the 5 NRM regions of the state to support NRM bodies, State and local government and other agencies undertaking planning and management in estuarine areas. These EIP's provide an overview of the environmental, social and economic values of the estuaries in each

region.

More broadly, the *South Australia's Strategic Plan (2004)* as reviewed and updated in January 2007, the 'Strategic Plan' represents a dynamic framework for the forward development of the State of South Australia, and acts as an umbrella policy, informing and instructing the creation and development of policy in all areas of governance. The key targets broadly instructing the evolution of South Australian policy on coastal development, climate change and the environment are: Lose no Species, Marine Biodiversity, Ecological Footprint, River Murray – flows, and River Murray – salinity.

New South Wales

A recent review conducted by the NSW Environmental Defender's Office (EDO) discovered that only 7 pieces of Commonwealth and NSW legislation mention climate change.¹⁶ Key legislation of relevance to coastal management in NSW includes: the *Coastal Protection Act 1979*, as amended in 2002; the *Environmental Planning and Assessment Act 1979 (EP&A Act 1979)*; and the *Local Government Act 1993 (LG Act 1993)*.

The *Coastal Protection Act 1979* is the principal piece of legislation that applies to the NSW coastal zone. It aims to provide for the protection of the coastal environment of the State "for the benefit of both present and future generations".¹⁷ This Act contains provisions relating to the use and supervision of the coastal zone, the carrying out of development within the coastal zone and the preparation of the Coastal Zone Management Plans.¹⁸ The coastal zone was extended in 2005 and now also applies to the greater metropolitan regions of Sydney, Newcastle, the Illawarra and the Central Coast.

The Act prohibits a public authority from authorising or carrying out development in the coastal zone, without the consent of the Minister, if the Minister is of the opinion that the development:

- is inconsistent with principles of ecologically sustainable development
- adversely affects the behaviour of the sea or an arm of the sea or any bay, inlet, lagoon, lake, body of water, river, stream or watercourse; or
- adversely affects any beach or dune the bed, bank, shoreline, foreshore or flood plain of the sea or an arm of the sea or any bay, inlet, lagoon margin, lake, body of water, river, stream or watercourse.¹⁹

16 For further detail please see the report prepared by the NSW EDO for the Sydney Coastal Councils Group: *Coastal Councils and Planning for Climate Change: An assessment of Australian and NSW legislation and government policy provisions relating to climate change relevant to regional and metropolitan coastal councils*. February 2008 and is available at: <http://www.edo.org.au/edonsw/site/policy.php>.

17 Section 3, *Coastal Protection Act 1979*.

18 Coastal Zone Management Plans must address the following three things: the protection and preservation of the beach environment and beach amenity; emergency action to be taken during periods of beach erosion; and continuing and undiminished public access to beaches and waterways.

19 The coastal zone is defined in the *NSW Coastal Policy 1997* as 3 nautical miles seaward of the mainland and offshore islands; 1 km landward of the open coast high water mark; a distance of 1 km around all bays, estuaries, coastal lakes, lagoons and coastal rivers to the limit of mangroves or the tidal limit whichever is closer to the sea.

The preparation of a Coastal Zone Management Plan is currently discretionary, unless the Minister directs a council to prepare a plan. However, it is prudent for a council to prepare such a plan even in the absence of a ministerial direction as it enables a strategic approach to be taken in responding to climate change impacts within the coastal zone.

The *Environmental Planning and Assessment Act 1979* (*EP&A Act 1979*) has the potential to greatly influence the interaction between infrastructure and the environment when considering development in the coastal zone²⁰. Section 117 of the *EP&A Act 1979*, provides that a Local Environmental Plan (LEP) be developed. An LEP is one environmental planning instrument (EPI) used to control the use of land adjoining the beach²¹. The development of such LEP's should include provisions that give effect to and are consistent with the NSW Coastal Policy 1997. This policy will be discussed in more detail below, however in reference to the development of EPI's, it provides the principles which should be addressed in new and existing LEP's (and Development Control Plans (DCP's)) to ensure:

- Only developments which do not compromise the natural and cultural values of the area will be permitted on beaches and frontal dunes; and
- In allowing works to protect, restore and rehabilitate beaches and frontal dunes, to preferably favour "soft" engineering²² approaches as developed through a Coastline Management Plan.²³

This Act appears to demonstrate that some efforts have been made to better manage the coastal zone, however in practice, many inappropriate developments are still approved in sensitive coastal zones. A consequence of the listing of developments in the coastal zone as Part 3A projects (under the *EP&A Act 1979*) is that developments that are likely to have the greatest impact on the coastal environment in NSW will be decided by the Planning Minister who determines the scope of any environmental assessment. This would be appropriate, provided that there is a clear process in place to ensure that environmental impacts are adequately considered, that the public is involved in the process and that concurrence is obtained from Minister for Climate Change, Environment and Water. This is not currently the case. Under section 75U of the *Environmental Planning and Assessment Act 1979*, the concurrence of the Minister for Climate Change, Environment and Water is not required for a Part 3A project (ie, the Minister charged with administering the *Coastal Protection Act 1979*).

On 1 November 2002 the Minister for Planning, pursuant to the *Environmental Planning and Assessment Act 1979* (*EP&A 1979*), implemented **State Environmental Planning Policy Number 71 – Coastal Protection (SEPP 71)**. This policy was introduced to regulate all development in NSW (other than the coastal land in the greater Sydney area) within the "coastal zone". The coastal zone is defined by reference

20 The coastal zone is defined in the *NSW Coastal Policy 1997* as 3 nautical miles seaward of the mainland and offshore islands; 1 km landward of the open coast high water mark; a distance of 1 km around all bays, estuaries, coastal lakes, lagoons and coastal rivers to the limit of mangroves or the tidal limit whichever is closer to the sea.

21 Thom, B. 2003, 'Beach Protection in NSW, New Measures to secure the environment and amenity of NSW beaches', *Environmental and Planning Law Journal*, vol. 20, no.5, pp 325-358.

22 Soft engineering approaches are discussed further below.

23 Thom, B. 2003, 'Beach Protection in NSW, New Measures to secure the environment and amenity of NSW beaches', *Environmental and Planning Law Journal*, vol. 20, no.5, pp 325-358.

to coastal zone maps, however it generally extends to:

- three nautical miles seaward of the mainland and offshore islands,
- one kilometre inland of the 'open coast' high water mark,
- one kilometre around all bays, estuaries, coastal lakes, lagoons and islands, and
- in relation to tidal rivers, one kilometre around the tidal waters of the river to the limit of mangroves, or the tidal limit (whichever is closer to the sea).

Under the policy, development applications that will diminish access to coastal foreshores, result in effluent that negatively affects water quality, or involve discharge of stormwater into the sea, a beach, coastal lake, creek or rock platform, must be rejected by the appropriate consent authority. SEPP 71 requires councils to address some of the environmental impacts associated with climate change, when deciding whether to grant consent to a development application. Councils are required to take into account “the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and hazards”²⁴. This policy appears to demonstrate that there has been progress made in implementing considerations regarding climate change when considering the viability of development applications in coastal zones. However, the introduction of the *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP), which incorporated several provisions from SEPP 71, has greatly undermined the environmental assessment process in coastal area. The *NSW Coastal Policy 1997* should be a mandatory consideration for the Planning Minister, and concurrence of the Environment Minister under the EP&A Act should also be required. Otherwise the overarching policy, which is meant to represent government policy relating to the management of NSW's coast, is meaningless, as it does not apply to activities that are likely to have the most significant impact on the coastal zone²⁵.

In addition, the *Local Government Act 1993* provides that responsibility for the management of lands and waters in a given local government area, falls usually to local councils. Section 377 of the *LG Act 1993* provides for very broad powers to delegate such responsibility to committees, formed under the Act, in regard to “any matter related to development or use of all or part of their LGA”²⁶. It is thought that such delegation has “established a process for evaluating hazards, amenities, resource use or conservation of areas periodically subjected to storm events” and has “established the lead role for councils in managing beaches which may or may not be formally in their care and control.”²⁷

In addition to legislation, a number of policies have been developed for the NSW coast. The principal policy guiding local councils in the coastal zone is the *NSW Coastal Policy 1997*. One of the aims of the

24 *State Environmental Planning Policy No 71 – Coastal Protection*, Part 2 Sec 8(j).

25 Full submission by the NSW EDO on this topic available at: http://www.edo.org.au/edonsw/site/policy/sepp_major_projects070525.php.

26 Thom, B. 2003, 'Beach Protection in NSW, New Measures to secure the environment and amenity of NSW beaches', *Environmental and Planning Law Journal*, vol. 20, no.5, pp 325-358.

27 Thom, B. 2003, 'Beach Protection in NSW, New Measures to secure the environment and amenity of NSW beaches', *Environmental and Planning Law Journal*, vol. 20, no.5, pp 325-358.

policy is to promote 'the ecologically sustainable development of the New South Wales coastline'. The Policy aims to facilitate the development of the coastal zone in a way which protects and conserves its values. This includes recognising and accommodating natural processes and protecting beach amenity and public access.

*"The 1997 Coastal Policy is essentially focused on recognising the need to reconcile the rapid population growth currently being experienced in coastal areas with the need to conserve what remains of valuable ecosystems."*²⁸

The *NSW Coastal Policy 1997* contains provisions to implement appropriate planning mechanisms that incorporate sea level change scenarios set by the Inter-governmental Panel on Climate Change (IPCC), in order "to protect and conserve the coast for future generations"²⁹. The Policy sets out various goals, actions and objectives. The key strategic action outlined in the policy is the development and implementation of Coastal and Estuary Management Plans in accordance with the existing Coastline and draft Estuary Management Manuals.

In June 1988 the NSW Government adopted the *Coastline Hazard Policy*. The primary objective of the *Coastline Hazard Policy* was to reduce the impact of coastal hazards on individual owners and occupiers, and to reduce private and public losses resulting from natural coastal forces. The Policy sets out that certain actions should be taken to address coastal hazards. First, the impact of coastal forces on existing developed areas shall be reduced by works and measures and by the purchase of property on a voluntary basis, where appropriate. Second, the potential for coastal damage in respect of any proposed coastline development shall be addressed through the application of effective planning and development controls by local councils. Lastly, a merits approach to all development and building decisions should be adopted which takes account of social, economic and ecological as well as oceanic process considerations.

The *NSW Coastline Management Manual 1990* was prepared as part of the implementation of the *Coastline Hazard Policy*. The Manual was created to facilitate a sound understanding of coastal processes/hazards in NSW and their underlying causes. It assesses and identifies all available management options against environmental, social and economic criteria. It also provides detailed guidelines for councils to follow to address coastal erosion issues. The Manual also outlines a series of steps to prepare and then implement Coastline Management Plans, as well as other adaptive actions councils can take to address coastal hazards. As part of the **Coastal Protection Package** announced in 2001, Cabinet requested that a new Coastal Zone Management Manual be prepared to combine and revise the existing Coastline and Estuary Management Manuals. This new manual is not expected until 2008-2009. The 2005 **NSW Floodplain Development Manual** also addresses climate change management issues.

The NSW Government supports the coastal management planning process through the **Coastal Management Program**. It aims to enhance the amenity of the NSW coastline and to protect

28 *NSW Coastal Policy 1997*, Available at:
<http://www.planning.nsw.gov.au/plansforaction/pdf/CPPARTA.PDF>.

29 *NSW Coastal Policy 1997*, Available at:
<http://www.planning.nsw.gov.au/plansforaction/pdf/CPPARTA.PDF>.

infrastructure from coastal hazards in an ecologically sustainable manner. Under the Program, which is administered by the Department of Environment and Climate Change, the Government provides funding to local councils on a 50:50 basis for the preparation of Coastal Zone Management Plans. The Program also provides funds toward the implementation of management plans including mitigation works to address coastal hazard problems or coastal amenity enhancement. Furthermore, specialist technical advice is provided to local government addressing coastal processes/hazards and coastal management. This includes representation on Coastal Management Committees, and the provision of technical/specialist advice as required.

Extract from *Planning for Coastal Climate Change: An Insight into International and National Approaches*, Barbara Norman³⁰

State	Policy/Strategies/Plan	Technical documents	Modelling/mapping	Future Work
VICTORIA	<p>The Victorian Coastal Strategy 2008 (VCS) sets the overall strategic direction for planning and management of the coast.</p> <p>Plan for sea level rise of not less than 0.8 metres by 2100, and allow for the combined effects of tides, storm surges, coastal processes and local conditions, such as topography and geology when assessing risks and impacts associated with climate change. As</p>	<ul style="list-style-type: none"> ▪ Currently developing interim guidelines about how to applying 0.8 metres sea level rise on coast ▪ Ministerial Direction- non urban to urban new developments ▪ General Practise Note - managing coastal hazards and the coastal impacts of climate change ▪ Advisory Note - detail on planning for 0.8 metre sea-level rise <p>http://www.dse.vic.gov.au/DSE/nre npl.nsf/LinkView/9237AC17626E8D9</p>	<ul style="list-style-type: none"> ▪ DEM for whole of coast at 20 cm contour detail ▪ Bathymetry for whole of coast ▪ Modelling work to be undertaken to look at erosion, inundation along the coast - scale and detail of this modelling is yet to be determined. <p>http://www.climatechange.vic.gov.au/futurecoasts</p>	<ul style="list-style-type: none"> ▪ The Future Coasts Program undertaken by DSE will investigate adaptation options and an assessment framework ▪ Planning Advisory Group set up by Department of Planning and Community Development (DPCD). Terms of Reference to be released shortly.

30 B Norman, *Planning for Coastal Climate Change: an Insight into International and National Approaches*, Victorian Department of Sustainability and Environment and Department of Planning and Community Development, 2009 – Exhibit 176.

	<p>scientific data becomes available the policy of planning for sea level rise of not less than 0.8 metres by 2100 will be reviewed.</p> <p>State Planning Policy Framework, clause 15.08 is updated to reflect latest VCS.</p> <p>http://www.vcc.vic.gov.au/2008vcs/part2.1climatechange.htm</p>	<p>ACA2572C6001E86EBEF546347BB845 D44CA2572DA007FE2BE</p>		
NEW SOUTH WALES	<ul style="list-style-type: none"> ▪ NSW Coastal Policy http://www.planning.nsw.gov.au/plansforaction/coastalprotection.asp ▪ State Environmental Planning Policy (SEPP) No. 71 - Coastal Protection commenced on 1 November 2002. The Policy has been made under the <i>Environmental Planning and Assessment Act 1979</i> ▪ Regional Strategies for coastal areas ▪ Draft policy plan for 0.9 m sea level rise to 2100 	<p>The definition of the coastal hazards takes into account the impact of sea level rise and future shoreline recession.</p> <p>Regional strategies require councils to consider increased coastal hazards when developing new LEPs.</p> <p>NSW Coastline Management Manual</p> <p>To guide for local councils, CMA and communities develop coastal zone management plans. Adopts a risk management approach</p> <p>http://www.environment.gov.au/coa</p>	<ul style="list-style-type: none"> ▪ Local govt doing LIDAR capture ▪ State bathymetry - LAD's (needs to be ground truthed well) ▪ Coastal vulnerability assessment – risk based approach – value asset (\$ values erosion etc) ▪ 95 % complete not yet released http://www.planning.nsw.gov.au/plansforaction/climatechange_mapping.asp 	<ul style="list-style-type: none"> ▪ Govt doesn't have funding to buy back land ▪ Department of Planning will develop guidelines for consistent assessment of future developments in vulnerable areas. ▪ The Coastline Management Manual is being reviewed by DECC.

		<p>sts/publications/nswmanual/index.html</p> <p>Local Environmental Plan template</p> <p>The LEP template includes provisions for consideration and accommodation of the impacts of climate change and sea level rise.</p> <p>Floodplain guidelines</p> <p>DECC's Floodplain Risk Management Guideline Practical Consideration of Climate Change</p> <p>SLR Technical Note</p> <p>The government has issued a technical note which explains how the sea level rise benchmarks were derived.</p>		
TASMANIA	<p>State Coastal Policy 2008 has been endorsed Government and is about to be referred to the RPDC for formal public consultation under the <i>State Policies and Projects Act 1993</i>. Implementation guidelines will also be referred.</p> <p>Standard planning scheme</p>	<p>DPIW managed Coastal Risk Assessment project The Project is developing tools and resources to assist with risk-based management and planning for various assets and values in the coastal zone.</p> <p>http://www.dpiw.tas.gov.au/inter.nsf/WebPages/HBAW-7HNVLZ?open.</p>	<p>Clarence City Council 'CC Impacts on Clarence Coastal Areas' project is a detailed integrated assessment of climate change risks</p> <p>http://www.ccc.tas.gov.au/webdata/resources/files/CCICCA-Final-Report-A415375.pdf</p>	<p>Work across government during 09/10 will focus on:</p> <p>Policy settings</p> <p>Planning provisions</p> <p>Implementation of Risk Assessment template with local Councils</p>

	<p>provisions will be developed as a recommendation of 'Better Planning Outcomes' project. New Coastal Policy and other policies will be implemented through these provisions.</p> <p>http://www.justice.tas.gov.au/landuseplanning/better_planning_outcomes</p> <p>Existing State Coastal Policy 1996 -Outcome 1.4.3 is a driver for current policy and program responses to the potential effects of climate change (including sea level rise) on use and development in the coastal zone.</p> <p>Regional Planning</p> <p>Four regional planning strategies will include coastal planning issues and CC/SLR. They will contribute to implementation of new coastal policy. Current planning schemes will be replaced by a 'model' scheme that will</p>	<p>Technical documents include:</p> <ul style="list-style-type: none"> ▪ Template Coastal Risk Management Plan ▪ General Information Paper on Coastal Hazards on Tasmania ▪ Climate Change and Coastal Asset Vulnerability: An audit of Tasmania's coastal assets potentially vulnerable to flooding and sea-level rise ▪ Sea-Level Extremes in Tasmania: Summary and Practical Guide for Planners and Managers ▪ Reference Manual: Historical and Projected Sea-Level Extremes for Hobart and Burnie, Tasmania ▪ Background Report Coastal flooding: Review of the use of Exceedence Statistics in Tasmania 	<p>Current State initiative to draw together available data into 'toolbox' to support 'Clarence' type projects across Tasmania. Resources to be sought to address gaps. Data includes:</p> <ul style="list-style-type: none"> ▪ LIDAR 25 cm contours to 10m for more populated coastlines - free to all to use ▪ Bathymetry a significant gap ▪ Foreshores and immediate hinterland values mapping underway ▪ Inshore marine habitat mapping to 40m (SeaMap Tasmania) 	<p>Identification of risk to natural systems</p> <p>Publishing coastal works and CC response manual</p> <p>Collaboration with local govt. under Statewide Partnership Agreement</p> <p>http://www.climatechange.tas.gov.au/features/Partnership_Agreement_on_Climate_Change.pdf</p>
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	<p>implement the regional strategies.</p> <p>Sea level rise</p> <p>No statewide approach at this stage – individual planning schemes vary, but a number use 3 m AHD inserted in the late 1980s. Tasmania may not adopt a uniform SLR value at this stage, but is adopting a risk based approach taking location and planned life of development into account.</p>			
SOUTH AUSTRALIA	<p>Policy</p> <p>Coast Protection Board Policy Document, endorsed 30 August 2002.</p> <p>Coast Protection Board Policy translated into coastal Development Plans (the statutory development control documents – one Development Plan for each area) by way of a Ministerial amendment in 1994.</p> <p>The Board recommends sea level</p>	<p>Coast Protection Board Policy Document, endorsed 30 August 2002 – includes:</p> <p><i>Appendix 1- Standards applying to new development with regard to coastal flooding and erosion and associated protection works, includes 11 Standards including the following:</i></p> <p>S1 – Site and Building Levels</p> <p>S2 - Flood Protected site and building levels</p>	<p>Port Adelaide Seawater Stormwater Flooding Study Project led and partly funded by City of Port Adelaide Enfield with further funding from Commonwealth and State sources.</p> <p>The project is in two parts –</p> <p>Stage (1): A full assessment of the potential risks associated with the projected coastal impacts of climate change, combined with the existing flooding profile (completed);</p>	<p>April 10 2008 – State Government reaffirmed its support to review the Coast Protection Act.</p> <p>Continuing effort to improve Development Plans to ensure that sensitive coastal features (including areas subject to coastal hazards) are included in appropriate coastal zones</p>

	<p>rise of 0.3m by 2050 to be adopted for most coastal development (provided that development can be practicably protected against the further rise of 0.7 m to 2100).</p> <p>In regards to coastal erosion, development setbacks should generally take into account 100 years of erosion at a site (taking into account local coastal processes and assuming a sea level rise of 0.3m by the year 2050). For major developments, especially those establishing entire new communities, 200 years of recession should be considered, and also the effect of sea level rise on this over the longer period.</p> <p>Currently the Board policy is under review - on 27 March 2009 the Board endorsed the Final Report of its Sea Level Rise Advisory Committee and approved targeted stakeholder consultation</p>	<p>S3 - Sea Level Rise for Major Developments</p> <p>S4 - Setback for Erosion</p> <p>S5 - Impact of Protection Works</p> <p><i>Appendix 2 - Draft Development Guidelines and Risk Assessment Criteria for Coastal Acid Sulfate Soils in South Australia</i></p> <p>The 1994 Ministerial amendment to Development Plans provided a set of regional and council-wide objectives and principles. The provisions included matters of environment protection, the preservation of scenic, heritage and other values, maintenance of public access and hazard risk minimisation (coastal flooding and erosion):</p> <p>Those provisions included the following Principles:</p> <p><i>Maintenance of Public access</i></p> <p><i>15 Development adjacent to the coast</i></p>	<p>Stage (2): A strategic plan to address the issues identified in the above study, with associated investment programme (underway)</p> <p>Funding from the Natural Disaster Mitigation Program has been provided for sea flood risk mapping on low-lying coastal areas of Yorke Peninsula. The project incorporates the following key steps:</p> <ol style="list-style-type: none"> 1. Identification of Priority areas 2. Aerial Photography 3. Establishment of new survey benchmarks in coastal areas 4. Building of a Digital Elevation Model for Flood Mapping 5. Analysis of Flood Hazard under current and future sea level rise scenarios (four townships completed, two remaining). <p>Funding has also been provided from</p>	<p>Coast Protection Board advice provided to Planning Authorities on development applications is not always accepted. Therefore the Government is examining extending powers of direction to the Coast Protection Board under Schedule 8 of the Development Regulations particularly in relation to coastal hazards.</p> <p>This is consistent with Strategy 4.3 of the Government's Living Coast Strategy</p>
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		<p><i>should not be undertaken unless it has or incorporates the provision of a public reserve, not including a road or erosion buffer provided in accordance with Principle 26, of at least 50 m width between such development and the toe of the primary dune or the top edge of the escarpment, unless the development relates to small scale infill development in a predominantly urban zone.</i></p> <p><i>21 For the purposes of assessing coastal developments the standard sea-flood risk level for a development site is defined as the 100 year average return interval extreme sea level (tide, stormwater and associated wave effects combined), plus an allowance for land subsidence for 50 years at that site.</i></p> <p><i>22 Land should not be divided for commercial, industrial or residential purposes unless a layout can be achieved whereby roads, parking areas and adequate development sites on each allotment are at least 0.3 m above the standard sea-flood risk level, unless the</i></p>	<p>the Natural Disaster Mitigation Program for a scoping study into South Australia's vulnerability to tsunamis, storm surge and sea level rise. The objective of the study is to identify knowledge gaps and prioritise future studies/works. The project is nearing completion with the final report to be delivered in June 2009.</p>	
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		<p>should have a floor level of at least 1.25m above the standard sea-flood risk level.</p> <p>25 Development which requires protection measures against coastal erosion, sea or stormwater flooding, sand drift or the management of other coastal processes at the time of development, or which may require protection or management measures in the future, should only be undertaken if:</p> <p>(a) the measures themselves will not have an adverse effect on coastal ecology, processes, conservation, public access and amenity;</p> <p>(b) the measures do not now, or in the future require community resources, including land,</p> <p>(c) the risk of failure of measures such as sand management, levee banks, flood gates, valves or stormwater pumping, is</p>		
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		<p>appropriate to the degree of the potential impact of a failure; and</p> <p>(d) adequate financial guarantees are in place to cover future construction, operation, maintenance and management of the protection measures.</p> <p><i>26 Development should be set-back a sufficient distance from the coast to provide an erosion buffer which will allow for at least 100 years of coastal retreat for single buildings or small scale developments. or 200 years of retreat for large scale developments such as new towns, unless:</i></p> <p><i>(a) the development incorporates private coastal works to protect the development and public reserve from the anticipated erosion, and the private coastal works comply with Principle 25; or</i></p> <p><i>(b) the council is committed to protecting the public reserve and</i></p>		
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		<p><i>development from the anticipated coastal erosion.</i></p> <p>27 <i>Where a coastal reserve exists, or is to be provided in accordance with Principle 15, it should be increased in width by the amount of buffer required.</i></p> <p>Note : SA Supreme Court Determination: Northcape Properties Pty Ltd V District Council Of Yorke Peninsula [2008] SASC 57 (4 March 2008).</p> <p>http://www.austlii.edu.au/au/cases/sa/SASC/2008/57.html</p>		
QUEENSLAND	<p>The State Coastal Plan commenced in February 2002 and describes how the coastal zone is to be managed as required by the <i>Coastal Protection and Management Act 1995</i>.</p> <p><i>Supported by regional coastal plans (four completed)</i></p> <p><i>Coastal plans have status of State planning policy</i></p>	<ul style="list-style-type: none"> ▪ Technical guidelines about assessment of storm tide inundation risk – applies a nonstatutory SLR factor of 0.3 m/50yrs. This factor applied since 1993 (now under revision) ▪ Guidelines published to show how coastal policies can be integrated into local planning schemes and applied in development assessment <p>Erosion</p> <p>Information Fact Sheet - Assessment of erosion prone area width – Section 2.6</p>	<ul style="list-style-type: none"> ▪ Erosion prone area mapped (0 to 400 m on open coast depending on coast type; default 40m from MHWS tide in tidal waterways) ▪ Aerial photograph program regularly flown (every 4 years along east coast – NSW to Cooktown). ▪ Moved from film to digital images in 2008 ▪ DEM - State has recently adopted data standard and has 	<p>Revising Coastal Plan</p> <p>Section 42 of the Coastal Protection and Management Act 1995 requires that coastal plans be reviewed within seven years of commencement.</p> <p>The Minister for Sustainability, Climate Change and Innovation announced the</p>

	<p>The State Plan states that coastal management plans must address the impacts of climate change.</p> <p>Policy 2.2 – Physical Coastal Processes</p> <p>2A Principle – Trends in climate change including sea level rise, more extensive storm tide flooding and associated potential impacts are taken into consideration in planning processes.</p> <p>Policy 2.2.1 – Adaptation to Climate Change - Has a range of principles but not SRL number.</p> <p>Regional plans and planning schemes under Planning legislation provide means to give effect to coastal policies in development decisions</p> <p>Coastal Act provides that State can take land in erosion prone area (without compensation) where approval is given to subdivide –</p>	<p>– Brunn Rule used.</p> <p>Estimated SRL in based on the best current information available and the current value adopted for use in erosion prone area determination over a 50 year planning period is 0.3m.</p> <p>Shoreline erosion management plans</p> <p>– state funds 50% with councils – aimed at erosion response in advance of it becoming an emergency problem shows ‘ hot spots’ for councils eg: Cairns, sunshine</p>	<p>funded program (with Commonwealth) to acquire DEM between NSW & Cooktown, plus hotspots (e.g. Torres Strait & remote communities). Expect data capture to be complete by end 2010</p> <ul style="list-style-type: none"> ▪ Plot erosion, accretion at local scale (using aerial photo collection) 	<p>commencement of the review on 26 January 2008.</p> <p>New State coastal plan at an advanced stage – expected to release draft for public review in 3rd quarter 09. SLR factor being revised.</p>
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	provisions sit outside planning & development system			
WESTERN AUSTRALIA	<p>State Planning Policy 2.6 – State Coastal Planning Policy. This must be taken into account by decision makers in coastal planning.</p> <p>Currently have 100 m setback (from vegetation line) (with increase in 0.8 me sea level rise this would increase to 140m – this setback area is for both public access and physical erosion management)</p>	<p>SPP – Schedule 1 – Coastal Development Setback Guidelines for Physical Processes.</p> <p>There are three parts to the calculation:</p> <ol style="list-style-type: none"> 1. trend of erosion (S1) 2. incidence of extreme storm events (S2) 3. magnitude of sea level rise (S3) <p>Guidelines based on 100 year planning time frame.</p> <p>Distance to allow for sea level rise has been derived from IPCC 2001 of 0.30m and applied to the Brunn rule with the multiplier of 100.</p>	<ul style="list-style-type: none"> ▪ DEM and bathymetry capture occurring at various locations <p>Tsunami modelling, flood modelling and storm surge modelling</p>	<ul style="list-style-type: none"> ▪ Discussion paper about canal estates ▪ Preparing a revision of the S3 component. ▪ Reviewing policy guideline document to implement provisions in policy – may include sea level rise to 0.8m