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Secretary:	

Ms Janet Holmes  
The Secretary  
Standing Committee on Climate Change, Water, Environment  
and the Arts  
House of Representatives  
Parliament House  
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04 JUN 2008

Dear Ms Holmes

**Inquiry into climate change and environmental impacts on coastal communities**

All levels of government in Australia recognise that climate change is one of the biggest challenges that we face, and that coherent and comprehensive policies are required to meet those challenges in an effective manner. Accordingly, the Climate Change and Water Working Group, under the Council of Australian Governments, is currently pursuing an effective national response to climate change, encompassing a single national emissions trading scheme with nationally consistent supporting mitigation measures, and a national cooperative approach to long-term adaptation to climate change.

The COAG process will broadly address many of the terms of reference established under this inquiry, through developing measures to reduce the vulnerability of key sectors, including the coastal zone, and to improve infrastructure and settlement planning in coastal communities. Notwithstanding this, NSW is pleased to provide the attached submission to the inquiry, which highlights specific priority considerations for addressing climate change and environmental impacts on coastal communities.

Currently COAG is reviewing inter-jurisdictional arrangements relating to building, infrastructure and settlements through Working Groups on: Climate Change and Water; Infrastructure; Business Regulation and Competition (which considers planning and building reform); and Housing. It is envisaged that this work will address potential duplication and gaps in effective planning for coastal communities and be used to inform the work programs of the relevant Ministerial Councils.

The Department of Environment and Conservation NSW is now known as  
the Department of Environment and Climate Change NSW

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Department of **Environment & Climate Change** NSW



While land-use planning is a responsibility of the States and Territories, NSW considers a more collaborative and supportive relationship across all levels of government could assist in delivering targeted and economically appropriate regional responses to the impacts of climate change on Australia's coastal communities.

If you have any queries regarding this matter, please do not hesitate to contact me or have your staff contact Simon Smith, Deputy Director General, Climate Change, Policy and Programs on (02) 9995 6222.

Yours sincerely

A handwritten signature in black ink that reads "Lisa Corbyn". The signature is written in a cursive, flowing style.

**LISA CORBYN**  
**Director General**

**NSW SUBMISSION TO STANDING COMMITTEE ON CLIMATE CHANGE,  
WATER, ENVIRONMENT AND THE ARTS  
INQUIRY INTO CLIMATE CHANGE AND ENVIRONMENTAL IMPACTS ON  
COASTAL COMMUNITIES**

**COASTAL POPULATION GROWTH AND NSW POLICY FRAMEWORK**

NSW Government projections suggest that Sydney and the coastal regions of NSW will increase their share of the NSW population from 87.9% in 1996 to 90.5% in 2021. This represents an increase of around 960,000 people living in coastal areas or coastal hinterland by 2021. Most of this increase will be in Sydney, Newcastle and Wollongong (735,000 people) in terms of absolute numbers, but the fastest rate of growth will occur on the Mid-North Coast, and in the Richmond-Tweed areas (28% and 34% respectively, or 152,000 additional people).

In recognition of the far reaching implications of this projected population growth, the Department of Planning has developed Regional Strategies which provide settlement plans to accommodate population and employment growth over the next 25 years. These strategies provide directions for land-use planning at the local scale, principally through Local Environment Plans (LEPs), which are a compulsory planning instrument required of each local council in NSW. Regional strategies and LEPs will be subject to review every five years to provide opportunities to evaluate and possibly modify the framework in which councils plan and approve developments on coastal land, consistent with new information on population trends, economic conditions, transport and other infrastructure needs, and climate change impacts on coastal processes, such as sea-level rise.

In managing the coast, local councils are guided principally by the NSW Coastal Policy and the Coastline Management Manual, which address climate change risks, and emphasise the need to ensure that management strategies are robust yet flexible enough to adapt to changes in an environment of considerable uncertainty as to the nature, extent and timing of climate change impacts. The Government's Coastal Management Program provides financial assistance to local government for hazard mitigation works, maintenance of amenities of NSW beaches, and technical guidance with preparation and implementation of Coastal Zone Management Plans.

To help ensure that there is a balance between conservation and sustainable use within marine environments, New South Wales introduced the *Marine Parks Act 1997* to allow for the creation of Marine Parks. Pursuant to this legislation, NSW has established six Marine Parks. Five of the parks are adjacent to the NSW coast, and each Marine Park has a zoning plan that outlines the range of activities that may be undertaken within that zone.

The New South Wales terrestrial reserve system also provides a mechanism for sustainable use of natural environments. A focus area within the Reserve Acquisition Strategy relates specifically to the coast by targeting water catchments to protect important downstream aquatic ecosystems, such as high conservation value coastal lakes, wetlands, streams, estuaries and coastal near-shore marine environments, from pollution and siltation.

For the interest of the Standing Committee a summary of the current administrative arrangements for the NSW Coastline is included at Attachment A.

## STRATEGIC ISSUES and PRIORITY CONSIDERATIONS

### 1. Information management

Adaptation responses to changing coastal conditions must be based on the best information available. Establishing a sound, transparent and complementary information management system between all levels of Government is fundamental to addressing potential climate change impacts on coastal communities.

While noting that coastal planning necessarily occurs at a regional scale, it is important that parameters of climate change for coastal planning are based on credible and nationally agreed emission scenarios, sea-level rise modelling and planning timeframes. Coastal communities may benefit from nationally consistent parameters for key indicators, including precipitation (flood risks), temperature, wind (bushfire risks, cyclones) and sea level rise (coastal inundation), where regional idiosyncrasies do not militate against such an approach.

Given the need for management strategies to be flexible enough to adapt to changes in an environment of considerable uncertainty, a nationally consistent high resolution Digital Terrestrial Elevation Model for populated areas of the Australian coast could assist local communities to identify potential risks from storm surge, coastal inundation and coastal flooding, and inform coastal vulnerability assessments. Additional research would enhance community response capacity, including sub-aqueous digital elevation, wave climate modelling and regional sea level projections. NSW has recently trialled airborne laser scanning technology (LiDAR) to collect high resolution (0.15m vertical and 0.6m horizontal) digital elevation data over the Central and Hunter Coasts. This has provided four councils and their communities with detailed topographic information with which to make informed decisions about risk assessment and management in low lying areas for any sea level rise and/or flooding scenario.

### 2. Coastal Infrastructure

In 2006, the NSW Legislative Assembly Standing Committee on Public Works conducted an inquiry into infrastructure provision in coastal growth areas. The report endorsed the NSW Government's regional strategies approach, but recommended that coastal infrastructure audits be undertaken, guided by a (yet to be developed) nationally agreed methodology, to assist the provision of essential coastal infrastructure.

The Commonwealth is currently undertaking a *National Infrastructure Climate Change Adaptation Risk Assessment* to identify the susceptibility of infrastructure to climate change and options for adaptation. This initiative provides the opportunity to establish risk management frameworks to critically assess and cost the vulnerability of coastal infrastructure, and to plan requisite renewal and prioritisation programs. In addition, the Commonwealth's proposed review of the *Australian Rainfall and Runoff Handbook* could form an important input to the revision of building and construction design standards to take account of the range of authoritative potential future impacts of climate change.

The establishment of Infrastructure Australia, and the \$20 billion Building Australia Fund, may provide an opportunity to support essential infrastructure for coastal communities, where that infrastructure is nationally significant.

### **3. Roles and responsibilities of governance in the coastal zone**

Local councils play a lead role in implementing planning and development systems. It is important to engage meaningfully with councils to properly manage climate change risks to communities in the coastal zone. Incorporating land-use planning and performance standards at the local level, which take account of local and regional climate change risks, will assist in making informed planning and investment decisions in coastal areas, and foster resilience in coastal communities.

Local councils in NSW have raised concerns about legal and financial liability relating to climate change risks in the coastal zone. Councils should adopt clear risk management policies.

Nationally consistent guidelines on how councils can adequately respond to climate change risks, such as potential sea-level rise would provide guidance for private sector investors and coastal communities.





New South Wales

## **Inquiry into climate change and environmental impacts on coastal communities**

### **NSW Government submission Attachment A**

#### *Legislation*

*Coastal Protection Act 1979*

*Crown Lands Act 1989*

*Environmental Planning and Assessment Act 1979*

*Local Government Act 1993*

*Marine Parks Act 1997*

*National Parks and Wildlife Act 1974*

*Native Vegetation Act 2003*

*Natural Resources Commission Act 2003*

*Protection of the Environment Operations Act 1997*

*State Emergency and Rescue Management Act 1989*

#### *Coastal Policies*

The *NSW Coastal Policy 1997* provides a strategic framework for the management of the coastal zone. It is implemented through the *Coastal Protection Act 1979* and through State Environmental Planning Policy 71 (Coastal Protection). The State Environmental Planning Policy (Major Projects) identifies the majority of development in the coastal zone as a major project and therefore requiring approval of the Minister for Planning. In addition, State Environmental Planning Policies 14 (Coastal Wetlands) and 26 (Littoral Rainforest) provide further protection for sensitive coastal resources.

Further detail on these policies can be obtained from the Department of Planning website:

[www.planning.nsw.gov.au/plansforaction/coastalprotection.asp](http://www.planning.nsw.gov.au/plansforaction/coastalprotection.asp)

#### *Regional and Local planning*

To promote sustainable development the NSW Department of Planning (DoP) has developed Regional Strategies for all high growth coastal areas. The regional strategies provide a planning framework that allows for future development while protecting environmental assets. In addition a new Standard Instrument, or template for Local Environmental Plans (LEPs), has been released for use by councils [under Standard Instrument (Local Environmental Plans) Order 2006]. The template requires impacts of climate change and sea level rise to be considered and accommodated in principal LEPs.

Further detail on these strategies can be obtained from the Department of Planning website:

[www.planning.nsw.gov.au/plansforaction/whatshappening.asp](http://www.planning.nsw.gov.au/plansforaction/whatshappening.asp)

[www.planning.nsw.gov.au/planning\\_reforms/reform\\_progress.asp](http://www.planning.nsw.gov.au/planning_reforms/reform_progress.asp)

#### *Sustainable communities*

Sustainability is a major issue facing all communities in NSW and the NSW Department of Environment and Climate Change is involved in a wide variety of programs to promote

sustainable communities. Further detail on these initiatives can be obtained from the Department of Environment and Climate Change website:

[www.environment.nsw.gov.au/sustainingourevironment.htm](http://www.environment.nsw.gov.au/sustainingourevironment.htm)

[www.greenhouse.nsw.gov.au/actions](http://www.greenhouse.nsw.gov.au/actions)

#### *Impacts of Climate Change and Adaptation*

Climate change in coastal regions is predicted to result in retreat of the coastline and inundation. These changes follow from rising sea levels, more frequent coastal erosion and flooding due to increased intensity and increased frequency and duration of storms. Already on the NSW coast, a 3mm/yr rise in sea level has been observed since 1992 with higher end predictions suggest a rise in sea level up to 91cm by 2095.

While the general trends are understood the nature and extent of the impacts at a regional scale are not. The NSW Government is engaged in a number of research projects aimed at identifying the nature and extent of climate change impacts for use in adaptation measures. Further detail on climate change impacts and adaptation initiatives can be obtained from the following websites:

[www.coag.gov.au/meetings/130407/docs/national climate change adaption framework.pdf](http://www.coag.gov.au/meetings/130407/docs/national%20climate%20change%20adaption%20framework.pdf)

[www.planning.nsw.gov.au/plansforaction/climatechange\\_mapping.asp](http://www.planning.nsw.gov.au/plansforaction/climatechange_mapping.asp)

[www.greenhouse.nsw.gov.au/adaptation](http://www.greenhouse.nsw.gov.au/adaptation)

#### *A NSW Climate Action Plan*

The NSW Government is preparing a Climate Action Plan that aims to increase understanding and awareness of the impacts of climate change, improve the functionality of ecosystems, build adaptive communities and enhance economic resilience in NSW. The draft plan is currently being prepared.

*NSW Legislative Assembly Standing Committee on Public Works Inquiry into provision of Coastal Infrastructure in coastal growth areas (2006)*

[www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/3e96787730bfcabdca2570c90017f8fc/\\$FILE/Infrastructure%20in%20Coastal%20Growth%20Areas%20Executive%20Summary.pdf](http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/3e96787730bfcabdca2570c90017f8fc/$FILE/Infrastructure%20in%20Coastal%20Growth%20Areas%20Executive%20Summary.pdf)