



The  
**COASTWATCHERS**  
Association Inc

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**Eurobodalla's environment group**

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The Secretary  
Standing Committee on Climate Change, Water, Environment and the Arts  
House of Representatives  
Parliament House  
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**CANBERRA ACT 2600**

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Dear Ms Holmes,

Attached is our submission in response to The Inquiry into Climate Change and Environmental Impacts on Coastal Communities.

Acknowledgement of receipt would be much appreciated.

*Reina Hill*

Committee Member

On behalf of the Secretary



**SUBMISSION PREPARED BY  
THE COASTWATCHERS ASSOCIATION INC.**

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**INQUIRY INTO CLIMATE CHANGE  
&  
ENVIRONMENTAL IMPACTS ON COASTAL COMMUNITIES**

**HOUSE OF REPRESENTATIVES STANDING COMMITTEE  
ON CLIMATE CHANGE, WATER, ENVIRONMENT AND THE ARTS**

**MAY 2008**

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**INQUIRY INTO CLIMATE CHANGE  
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ENVIRONMENTAL IMPACTS ON COASTAL COMMUNITIES**

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## **1. Introduction**

The Coastwatchers Association is a community organization that has served the Eurobodalla for almost 25 years. We act as an environmental watchdog for the area, acting in close co-operation with the wider community to help protect the health and beauty of this very special region.

Our group monitors inappropriate coastal development and is concerned about many issues that impact adversely on the coastal environment. We actively participate in local, regional and state planning strategies.

A major concern of Coastwatchers for many years has been the threat of climate change and the impact of sea level rise on the coastal environment, infrastructure and the community. We strongly advocate a concerted approach by all levels of government to address these impacts. We appreciate the opportunity to bring our concerns to the attention of this inquiry.

Our submission is prepared in response to the prescribed terms of reference, as detailed below.

- Existing policies and programs related to coastal zone management, taking in the catchment-coast-ocean continuum
- The environmental impacts of coastal population growth and mechanisms to promote sustainable use of coastal resources
- The impact of climate change on coastal areas and strategies to deal with climate change adaptation, particularly in response to sea level rise
- Mechanisms to promote sustainable coastal communities
- Governance and institutional arrangements for the coastal zone

## **2. Existing policies and programs related to coastal zone management, taking in the catchment-coast-ocean continuum**

The recent Report *Coastal Councils And Planning For Climate Change*, prepared for the Sydney Councils Group by the NSW Environmental Defenders Office (EDO), assessed NSW government policy provisions relating to climate change. Some key findings of the Report were:

- *That of the 137 legislative instruments examined, only 16 make reference to 'climate change', 'greenhouse' or 'sea level rise',*

- Only 20 NSW and Commonwealth Policies make reference to 'climate change', 'greenhouse' or 'sea level rise'.
- There are currently few statutory obligations placed on local councils to address climate change... they retain significant discretion as long as the correct procedures are followed.
- Policies are non-legal documents, only given force where their implementation or consideration is required through legislation or ministerial direction. Several government policies have been given legal status in this manner, including the NSW Coastal Policy, the NSW Coastline Management Manual 1990 and various regional strategies. These policies contain potential climate management options and strategies. Councils are now required to ensure that draft LEPs are consistent with these policies.

The EDO Report has identified a clear need for state government guidelines to assist councils in setting benchmarks for strategic planning in relation to coastal hazards, and in providing guidance on when and how to conduct adaptive activities that address climate change risks

#### **Existing NSW Policies and Programs as listed in the EDO Report:**

- *The NSW Coastal Protection Act 1979* is the principal piece of legislation that applies to the NSW coastal zone and is consistent with Ecologically Sustainable Development (ESD). The Act allows for the making of Coastal Zone Management Plans.
- *The NSW Coastal Policy 1997* – The principal policy guiding councils in the coastal zone – the aim is to promote 'the ecologically sustainable development of the NSW coastline
- *State Environmental Policy (SEPP 71) – Coastal Protection & State Environmental Policy - Major Projects 2005*
- *Standard Local Environment Plan* – NSW Government introduced the Standard LEP template in 2006 – under Regulation 32 a council must recognise and accommodate coastal processes and climate change, including sea level rise on a development before it can grant consent.
- *The NSW Coastal Hazard Policy 1988* – Primary objective is to reduce the impact of coastal hazards on individual owners and occupiers and among other things, the provision of financial and technical advice to local government for the production of the *NSW Coastline Management Manual 1990*.
- *The NSW Coastline Management Manual 1990* – created mainly to facilitate a sound understanding of coastal processes/hazards in NSW and their underlying causes and identifies management options against environmental, social and economic criteria as well as detailed guidelines for councils to follow to address coastal erosion issues.
- *Coastal Management Program* – aims to enhance the amenity of the NSW coastline and protect infrastructure from coastal hazards in an ecologically sustainable manner.

In addition to the above policies and programs there a number of NSW Strategies that deal with the potential impacts of climate change, as listed below:

- *NSW Biodiversity Strategy*
- *NSW Greenhouse Plan*

- *National Greenhouse Strategy*
- *Metropolitan and Sub-regional Strategies*
- *NSW State Plan*
- *Regional Strategies*

### **3. The environmental impacts of coastal population growth and mechanisms to promote sustainable use of coastal resources:**

The latest ABS Census shows that most Australians live on or near our coastline, with about 85 per cent of the population living within fifty kilometers of the coast. Almost six million people live in coastal areas outside the capital cities.

Analysis of the Australian population also shows that coastal locations have become a Mecca for sea-changers from non-coastal regions and the bush. But as more baby-boomers reach retirement age and head for the coast, coastal populations will increase at an even greater rate placing additional burdens on infrastructure and the environment. This is at a time when climate change, rising sea levels and the likelihood of more powerful storms pose significant threats to vulnerable coastal communities and their property. It is estimated that over 700,000 Australian coastal properties are potentially at risk from long-term sea level rise and large storm surges.

It is logical to assume that the greater the population growth, the higher the impact is likely to be on the environment as more native bush is cleared for development and infrastructure. This in turn will result in loss of coastal bio-diversity and unique coastal attributes. As storm-water run-off increases, sedimentation and pollution will become a greater threat to pristine coastal waterways, wetlands and catchments.

A co-ordinated approach is needed by Commonwealth, State and local governments to implement national policies and programs to promote sustainable use of coastal resources, in keeping with the principles of ecologically sustainable development, the most relevant to climate change impacts being 'the precautionary principle' and the principle of inter-generational equity.

Governments must be proactive in bringing to an end the unsustainable logging of native forests for wood chip production. The *2008 State of the Forests Report* puts Australia's forestry reserves at 149 million hectares, compared with the 2003 estimate of 164 million hectares - 15 million hectares smaller than 2003. The Report also revealed that reserves of old growth reserves had declined and the number of forest species threatened or endangered had risen. Native forests act as natural carbon sinks and current logging practices will reduce the capacity of forests to perform this vital function

The extent of clearing for urban development is a huge concern for coastal communities and needs to be rationalised by governments. The replacement of bushland with impervious surfaces has increased the level of stormwater and toxic waste run-off into sensitive coastal wetlands and pristine waterways, increasing sedimentation and the risk contamination.

Sensitive coastal wetlands require increased buffer zones to protect threatened and endangered ecological communities from urban encroachment.

There are areas of Crown and private free-hold land, that have high conservation value and adjoin a national park or nature reserve that need to be zoned appropriately, for conservation or environmental management. Land adjoining marine parks must also be appropriately zoned to give added protection to the provisions of marine park legislation.

#### **4. The Impact of Climate Change on Coastal Areas and Strategies to deal with climate change adaption, particularly in response to sea level rise:**

Although much of the debate about climate change is based on scientific predictions, there seems to have been little connection between climate change science and precautionary planning by governments to cope with the predicted impacts of sea level rise.

As sea levels continue to rise, coastal erosion is expected to accelerate, causing landward movement of the retreating coastline at rates of tens to hundreds of times the rate of sea level rise, resulting in a host of ecological changes. Experts believe that for every metre of sea level rise there will be about 50 to 100 metres of erosion. Increased intensity and frequency of storm activities, and inundation of low-lying coastal locations are also anticipated impacts.

Detailed below are some strategies and measures to lessen the impacts of sea level rise.

- Assessment of development applications in the coastal zone strictly in accordance with sustainable ecological development principles.
- Where there are any doubts about the suitability of coastal development, apply 'the precautionary principle'
- Develop adequate buffers and setbacks for locations susceptible to erosion and flooding.
- Implement protection measures, such as dune regeneration and sand renourishment as standard practices around the entire Australian coastline, to help in combatting beach erosion.
- Acknowledge and enforce existing hazard management plans and strategies
- Develop escape and emergency plans to cope with future flooding and major storm events.
- Prepare contingency plans for property owners in vulnerable coastal locations, such as when to retreat and abandon threatened property.
- Develop 'buy back' programs for property under threat of sea level rise and deemed unsuitable for development.

#### **5. Mechanisms To Promote Sustainable Coastal Communities**

Just how well coastal communities cope with climate change impacts, escalating population and overburdened resources will depend on how resourceful and adaptable they are.

Over the years climate change and how to address its impacts, has been the subject of much debate in many coastal locations. Those with vested property interests have continued to deny its existence and to carry on regardless, while more environmentally concerned communities have accepted its inevitability and are proactive in seeking alternative sources of energy to limit carbon their emissions and are actively involved in planning to manage the impacts.

Australia is an ideal country to exploit alternative sources of clean energy, with long hours of sunshine, an enormous coastline and adequate wind power to provide viable clean alternatives to coal or the possible use of nuclear generated power.

Solar power is a clean energy source that has not been fully utilised in some coastal locations. Domestic solar panel installations would greatly ease demand on other energy sources, but the cost could be prohibitive for many cash strapped families struggling to cope with mortgage repayments. Cash rebates and/or tax-deductible incentives should be available to all who seek to convert to cleaner technologies, providing a way forward for governments to reduce carbon emissions.

Wind power generation, another clean energy alternative, is already in use in some coastal locations and support for this technology is growing rapidly. Wind turbines could be discreetly located in hinterland areas well away from the coastline.

Waves are a powerful source of energy to power turbines, to produce clean renewable energy technology. Just two turbines, located well offshore on the ocean floor, could generate enough electricity to supply 10,000 coastal homes. The southern half of the Australian coastline is known to be one of the best wave energy sites in the world and able to receive sufficient wave energy to generate power for more than 90% of the time. However, the technology is still in the developmental phase and commercial rollout may be some time away, but it would make good sense for governments to support this technology as the sea has enormous potential in meeting our sustainable energy needs.

With reduced rainfall and in some coastal locations declining dam reserves, communities will be faced with on-going water supply problems. What precious rainfall that does fall generally ends up in stormwater drains, en route to the sea. Greater incentives, by way of cash rebates and/or tax reductions need to be offered by governments for the installation of rainwater tanks to promote water self-sufficiency.

As food resources become scarcer and more expensive, coastal communities will need to become more self-sufficient and this could be achievable by forming local co-operatives to produce and market food locally. Not only would this initiative provide a healthier and cheaper alternative food source, it would also lessen the need for transportation from outside locations and reduce carbon emissions.

Transport is currently a problem for many coastal communities, especially in times of escalating fuel costs. In some locations there are no viable alternatives to using the family car to access services and facilities. South of Nowra, on the south coast of NSW, there is no rail link and public transport is limited to private bus services that run infrequently. Neither does the Princes Highway have good safety record. Bicycle and pedestrian pathways are not comprehensive and are often not linked, as they are in some cities and towns.

A completed and linked system of bicycle and pedestrian pathways would provide a safe and healthy alternative to driving and cut down on petrol use and carbon emissions. Funding to upgrade the Princes Highway south of Nowra is urgently needed to bring the highway up to major highway status. Coastal communities would also welcome a reduction in the cost of petrol, but it is also time for governments to seriously consider cleaner alternatives to petrol.

If sustainability and self-sufficiency are to be achieved, then coastal communities will need considerable financial investment and support from governments to assist with the introduction of alternative clean energy sources and to fund infrastructure upgrades. This investment would eventually help with the reduction of carbon emissions and provide healthy and safer alternatives for local communities.

## **6. Governance and institutional arrangements for the coastal zone**

Adaption to climate change, and measures to mitigate the impacts, will require more aggressive policies and programs within the coastal zone. Policy formulation and program implementation can be best achieved through collaboration between Commonwealth, State and local governments. There will also need to be collaboration between governments, private enterprise, NGOs and community based organisations.

As a function of COAG, State Government ministers responsible for climate change, need to develop a co-ordinated response to climate change.

A national taskforce comprising a mutidisciplinary team of experts needs to be set up to co-ordinate programs for risk and emergency management.

Several NSW state government policies address climate change and sea level impacts and measures to manage them. Guidance to minimise the impacts of climate change is provided in the *NSW Coastline Management Manual*, but the Manual needs to be updated to incorporate recent climate change science.

At a local government level in NSW, the impacts of climate change and sea level rise will be addressed in the new Standard LEP that will be required to recognise and accommodate coastal processes and climate change, including sea level rise on development before it can grant consent. Assessment will be according to ecologically sustainable development principles. As suggested in the EDO Report, Councils will be required to prepare Coastal Zone Management Plans to manage climate change impacts on local communities.

Within coastal communities right around the Australian coast community volunteers are actively involved in Dunecare and Coastcare groups. With appropriate training and expertise they carry out vital dune rehabiliton and restoration work to help prevent coastal erosion and minimise the effects of climate change. This community effort should contiue to be encouraged and supported by all levels of government.

## **7. Conclusion**

Climate change and sea level rise have the potential to be devastating for many communities who live within the coastal zone. This submission has focussed on the predicted impacts and devised some possible solutions to assist those who reside in vulnerable, resource stretched coastal locations to cope by switching to alternative sources of energy, by achieving sustainability and self-sufficiency, and by measures to protect the coastal environment through the principles of ecologically sustainable development.

Some suggested measures to address climate change impacts and how they might best be managed and co-ordinated by all levels of government are listed below:

1. Review policies on logging of native forests to halt unsustainable logging practices
2. Limit clearing for urban development
3. Increase buffers to protect sensitive coastal wetlands
4. Zone land with high conservation value for conservation and environmental management.
5. Assess development applications in the coastal zone strictly in accordance with ESD principles.
6. Develop adequate buffers and setbacks for vulnerable coastal locations
7. Implement protection measures for dunal areas as standard practice for all Australian coastal locations
8. Acknowledge and enforce all Coastal Hazard Management Plans



9. Develop national escape and emergency plans
10. Prepare escape contingency plans for vulnerable properties
11. Develop buy-back programs for vulnerable property, deemed unsuitable for development
12. Provide greater financial incentives to install solar panels and water tanks
13. Explore and promote alternative sources of clean energy, in particular wave power
14. Promote greater use of wind power
15. Encourage and support greater self-sufficiency and sustainable practices for coastal communities
16. Encourage and support production and sale of local produce through community co-operatives
17. Fund infrastructure upgrades and reduce fuel costs
18. Develop and encourage use of alternative fuel sources
19. Collaborative approach by governments to co-ordinate response to climate change
20. Set up national task force to co-ordinate risk and emergency management
21. Update NSW Coastline Management Manual to incorporate latest climate change predictions
22. Facilitate preparation of local government Coastal Zone Management Plans
23. Encourage and support community Dunecare/Coastcare volunteer groups to carry out vital dune regeneration.

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