



**Australian Government**  
**Attorney-General's Department**

**Territories and Native Title Division**

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30 May 2008

Committee Secretary  
Standing Committee on Climate Change, Water, Environment and the Arts  
PO Box 6021  
House of Representatives  
Parliament House  
CANBERRA ACT 2600

Dear Committee Secretary

**Attorney-General's Department Submission to the Standing Committee on Climate Change, Water, Environment and the Arts**

The Attorney-General's Department administers Australia's territories of Ashmore and Cartier Islands, Christmas Island, the Cocos (Keeling) Islands, the Coral Sea Islands, Jervis Bay, and Norfolk Island. While all of these territories may be vulnerable to the impact of climate change, there could be major consequences for Christmas Island, the Cocos (Keeling) Islands and Jervis Bay's biodiversity, community and infrastructure.

The Indian Ocean Territories of Christmas Island and the Cocos (Keeling) Islands are non-self governing external territories of Australia, administered by the Attorney-General's Department, which also provides state-type services to these island communities.

The Indian Ocean Territories have strategic importance to Australia in the protection of the northern border. The Cocos (Keeling) Islands represent the most western point of Australia's maritime interests and the Cocos airport runway enhances Australia's defence capabilities in the northern region. In addition, the Indian Ocean Territories have further strategic importance to Australia, such as ensuring access to the marine reserves in the surrounding waters.

Christmas Island is located approximately 2,600 kilometres northwest of Perth and 360 kilometres south of Java and has a population of approximately 1300.

Christmas Island is the summit of a submarine mountain. It rises steeply to a central plateau of 361 metres and is dominated by rainforest. The 80 km coastline is an almost continuous sea cliff ranging up to 20 metres high. The Island is surrounded by a coral reef and there is virtually no coastal shelf.

Approximately 63% of Christmas Island is National Park and is recognised for its unique flora and fauna. There are 16 species of flora that can only be found on Christmas Island. The annual crab mass migration to the sea to spawn has been described by ecologists as one of the natural wonders of the world.

The Cocos (Keeling) Islands are located 2,950 km north-west of Perth and 2,300km south-west of Singapore. There are 27 coral islands in the group, two of which are inhabited with a population of approximately 600. The inhabited islands, Home Island and West Island, are 12 km apart and are separated by a lagoon. Both are at most 5 metres above sea level.

Each island has rough coral beaches to seaward and sandy beached or mudflats on the lagoon side. The Islands are low lying and most are thickly covered with coconut palms. Water is sourced from underground lenses of fresh water. This water source is fragile and salt water will contaminate the lenses if overused.

In this context, the Attorney-General's Department makes the following submissions:

1. The coastal zones of the Cocos (Keeling) Islands, are affected by high tides, strong currents and cyclonic storm surges, which contribute to erosion and accretion in some areas of the islands. Climate change and rising sea levels will increasingly impact on areas of the Cocos (Keeling) Islands.
2. A study conducted in 1992 projected recession of the coastline if sea levels were to continue to rise. This would put at risk crucial infrastructure including the airfield, water supply and in time, the settlements on Home and West Island. Home Island's water supply is at most immediate risk from rising sea levels and the Attorney-General's Department is actively investigating sea water desalination.
3. Current risks for Cocos (Keeling) Islands include storm surge and tropical cyclones. Most pass by without causing any significant damage. A small number of cyclones have caused severe damage during the last 150 years. However increased sea levels and a predicted change in weather patterns may pose a greater risk to the community.
4. Climate change, specifically warming sea surface temperatures also impacts marine ecological systems. Coral reefs are critical to the community's economic wellbeing by providing resources and habitats for fish and are a basis for the small tourism industry.
5. Christmas Island is less vulnerable to the impacts of rising sea levels due to its greater height above sea level, however human settlement and a fledgling tourism industry based on marine and terrestrial ecological systems may be impacted by climate change.
6. Phosphate mining is the major economic activity on Christmas Island. The mine is currently operated by Phosphate Resources Ltd, trading as Christmas Island Phosphates. In May 2007, an application to extend phosphate mining on Christmas Island was refused environmental approval under the *Environment Protection and Biodiversity Act 1999*. Consequently, the mine predicts that its mining activities on Christmas Island will cease within 6-10 years.
7. One of the provisions of the mine's lease agreement with the Commonwealth is that Christmas Island Phosphates pay a Conservation Levy to the Australian Government. Christmas Island Phosphates pays approximately \$750,000 - \$1.2 million a year which currently funds rehabilitation work undertaken on Christmas Island by Department of Environment, Water, Heritage and the Arts' Parks Australia North.
8. Approximately 3300 hectares of rainforest on Christmas Island has been cleared and mined over the last century. Over 200 hectares has been rehabilitated with varying levels of success. The forest rehabilitation program addresses the need to restore Christmas Island's tropical

rainforest on sites where it once occurred. Additionally, the program has the potential to contribute to the reduction of greenhouse gases.

9. The Attorney-General's Department is currently making an approach to market for climate change research in the Indian Ocean Territories and is seeking advice on the rate of sea level rise, storm surge and cyclonic activity. The research will also include a comprehensive risk analysis of the potential impacts to human settlement including human health, economic and infrastructure impacts. This research will be used for future planning and development of the Indian Ocean Territories.

The Attorney General's Department also has administrative responsibility for the Jervis Bay Territory, providing services equivalent to state and local governments in other jurisdictions. These services include health, education, local government services and critical infrastructure (water, electricity and sewage treatment).

In this context, the Attorney-General's Department makes the following submissions:

1. The Jervis Bay Territory (Jervis Bay) is an extensive headland, including Bherwerre Peninsula and Bowen Island, on the coast of New South Wales. It is about 200 kilometres by road south of Sydney, 35 kilometres from Nowra and 260 kilometres from Canberra. It covers an area of approximately 7,400 hectares with 875 hectares of Commonwealth waters from Bowen Island to Captains Point.
2. Booderee National Park and Botanic Gardens represent approximately 83 percent of the Territory and includes all Commonwealth waters of the Jervis Bay Territory and Bowen Island. The remaining areas of the Territory include HMAS Creswell, the Jervis Bay Range Facility, the Wreck Bay Village, Jervis Bay Village and private leases located near Sussex Inlet.
3. With such a large proportion of the Jervis Bay Territory comprising of Booderee National Park and Botanic Gardens any temperature increase in conjunction with a corresponding decrease in humidity, due to climate change, would significantly increase the risk of wildfire.
4. According to the 2006 census, the population of the Jervis Bay Territory is approximately 369. 209 people reside at Wreck Bay Village; 85 at Jervis Bay Village; and 25 at private leases near Sussex Inlet. The remainder of the population reside at HMAS Creswell, a naval training facility. The population numbers vary throughout the year according to class intake at HMAS Creswell and tourists visiting the National Park.
5. Wreck Bay Village is located on the coast line approximately ten metres from the water and would be vulnerable to storm surge and rising sea levels.
6. There is only one access road into the Jervis Bay Territory. If this road was closed due to wildfire or storm damage, residents would be unable to evacuate via the road into New South Wales.
7. The primary water supply of the Jervis Bay Territory is Lake Windermere. The catchment area is wholly located within Booderee National Park. Lake Windermere is perched coastal

dune lake with a continuous flow of water through the surrounding groundwater aquifer into the lake with coastal seepage entering the sea.

8. Lake Windermere is vulnerable to climate change with anticipated increases in temperature increasing evaporation with reduced rainfall effecting direct collection of water, surface runoff, and reducing the amount of groundwater inflows.
9. Part of the potable water supply of the private leases at Sussex Inlet is derived from a series of bores into the ground water aquifer. The water lenses feeding those bores would be vulnerable to salt water contamination as a result of rising sea levels and climate change.
10. The Jervis Bay Territory is also an important ecological and ecotourism destination, home of the Booderee National Park and an important wildlife corridor on the shores of Jervis Bay. Any increase in ground water salinity may result in the die back of flora within the Jervis Bay Territory.
11. The Jervis Bay Territory coastal zone is managed under the *Environmental Protection Biodiversity and Conservation Act 1999*, the Booderee National Park Management Plan and the *Environment Protection Act 1997 (ACT)*. The ACT Environment Protection Authority routinely monitors groundwater quality and provides the results to the Attorney-General's Department. The Booderee National Park and Botanic Gardens are jointly managed by the Department of the Environment, Water, Heritage and the Arts and the Wreck Bay Aboriginal Community Council.

I look forward to the release of the Committee's findings.

The action officer for this matter is Rachel Pollock who can be contacted on 02 6218 6975.

Yours sincerely



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