



Australian Government

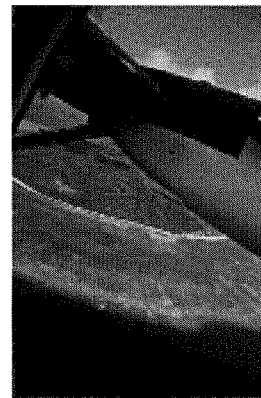


Submission No: 79
Date Received: 15-9-08
Secretary: [Signature]

CLIMATE CHANGE IN THE TORRES STRAIT AND THE IMPACT ON INDIGENOUS PEOPLES

Submission to the
House of Representatives Standing Committee on Climate Change,
Water, Environment & the Arts

Inquiry into climate change and environmental impacts on coastal communities.



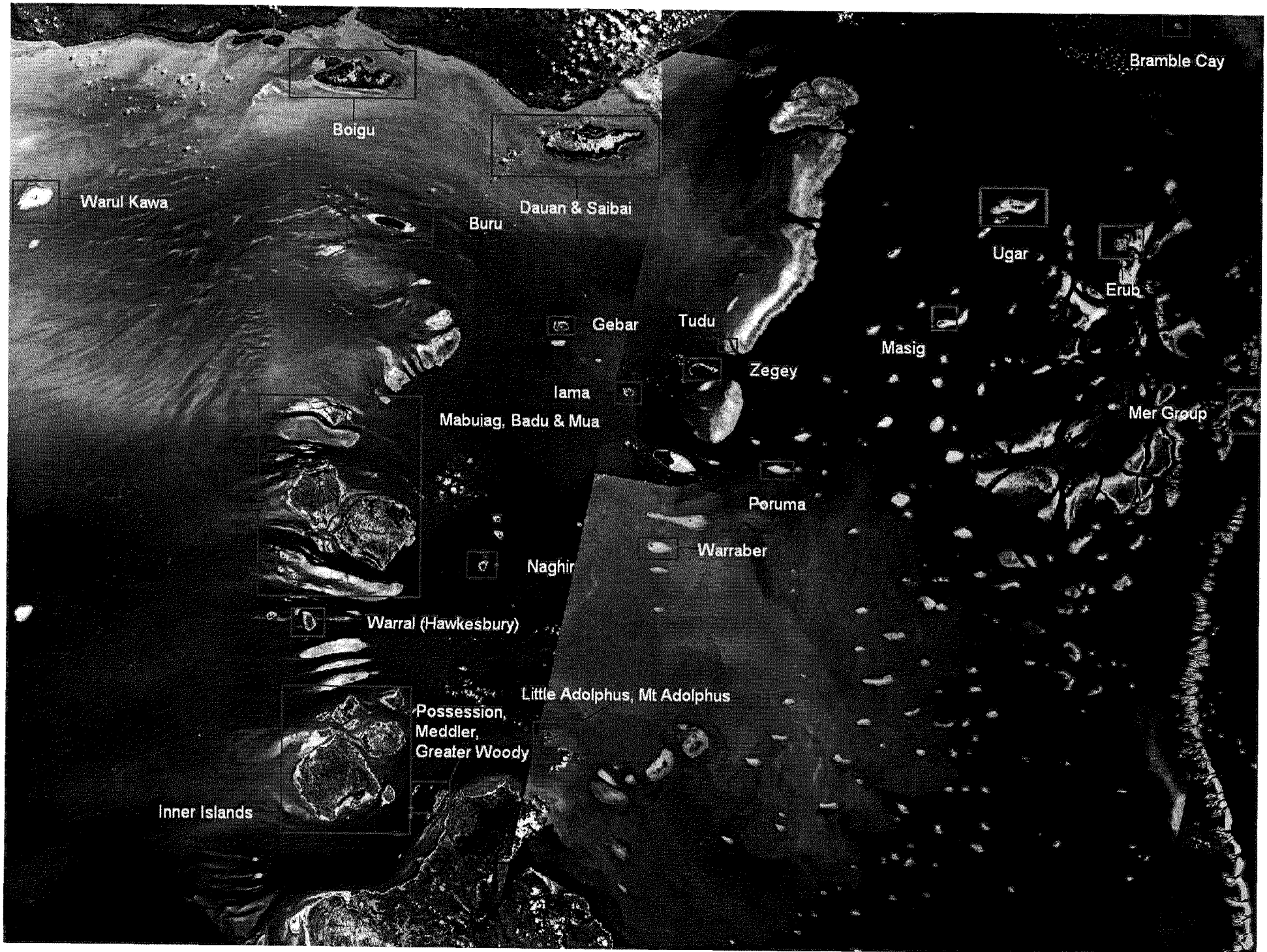


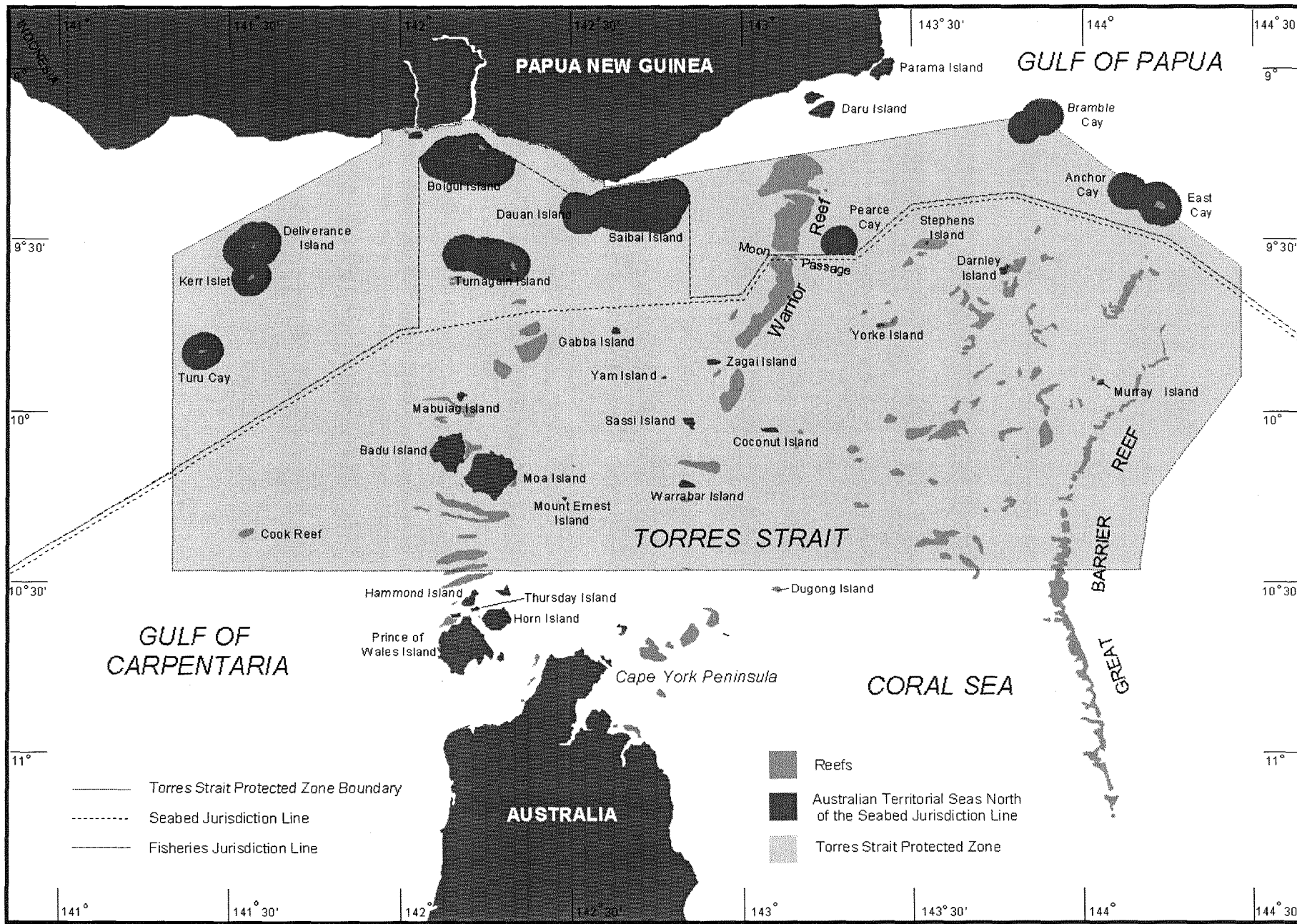
Australian Government



The Torres Strait Region

- **Lies between the tip of Cape York Peninsula and the coast of Papua New Guinea.**
- **19 Indigenous communities across 16 geographically remote inhabited islands and the Northern Peninsula Area**
- **Torres Strait Islander people have strong seafaring and trading traditions, maintaining bonds to the sea through their culture, lifestyle and history**
- **Communities have very diverse socio-economic, cultural and political characteristics**







Australian Government



Boigu Island





Australian Government



Boigu Island



Eastern end of Boigu Island during king tides on 15 February 2006.

Source: QLD EPA 2007



Australian Government



Saibai Island

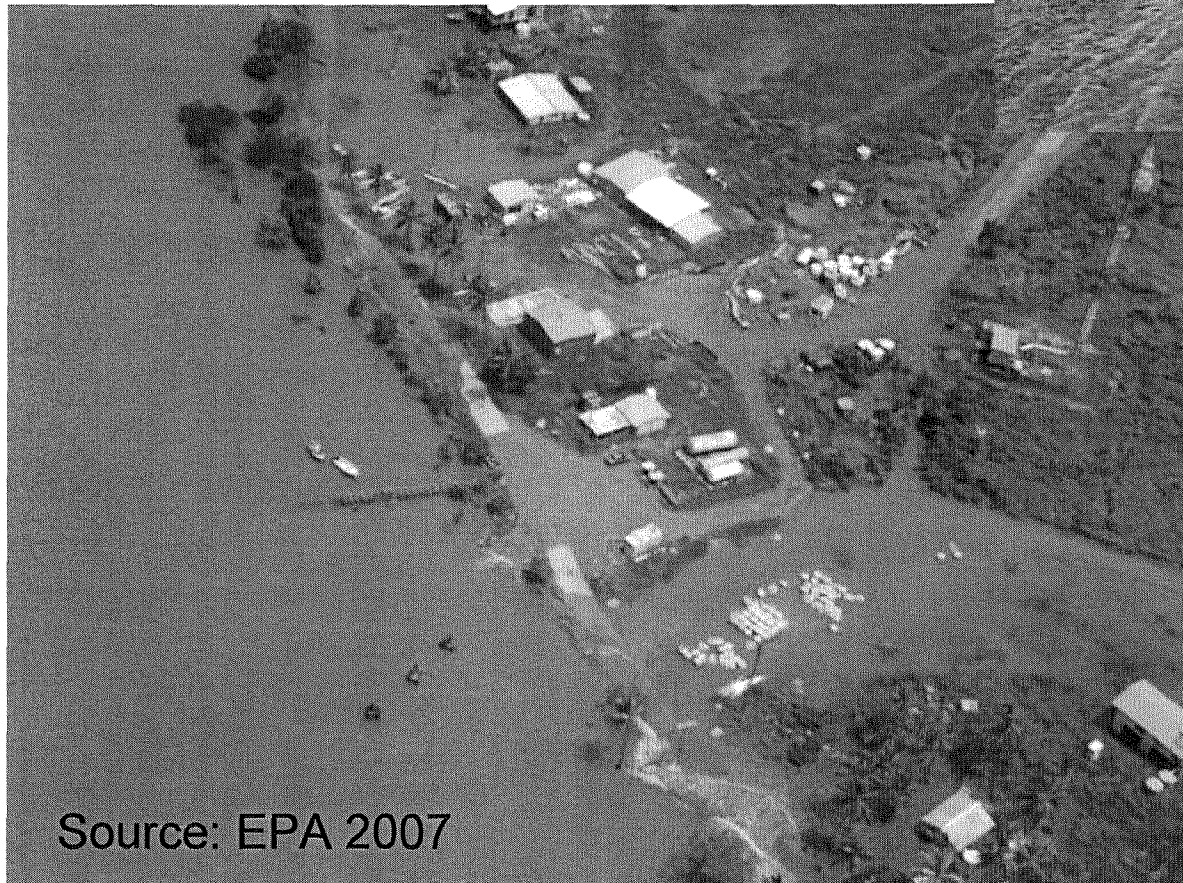




Australian Government



Saibai Island



Source: EPA 2007

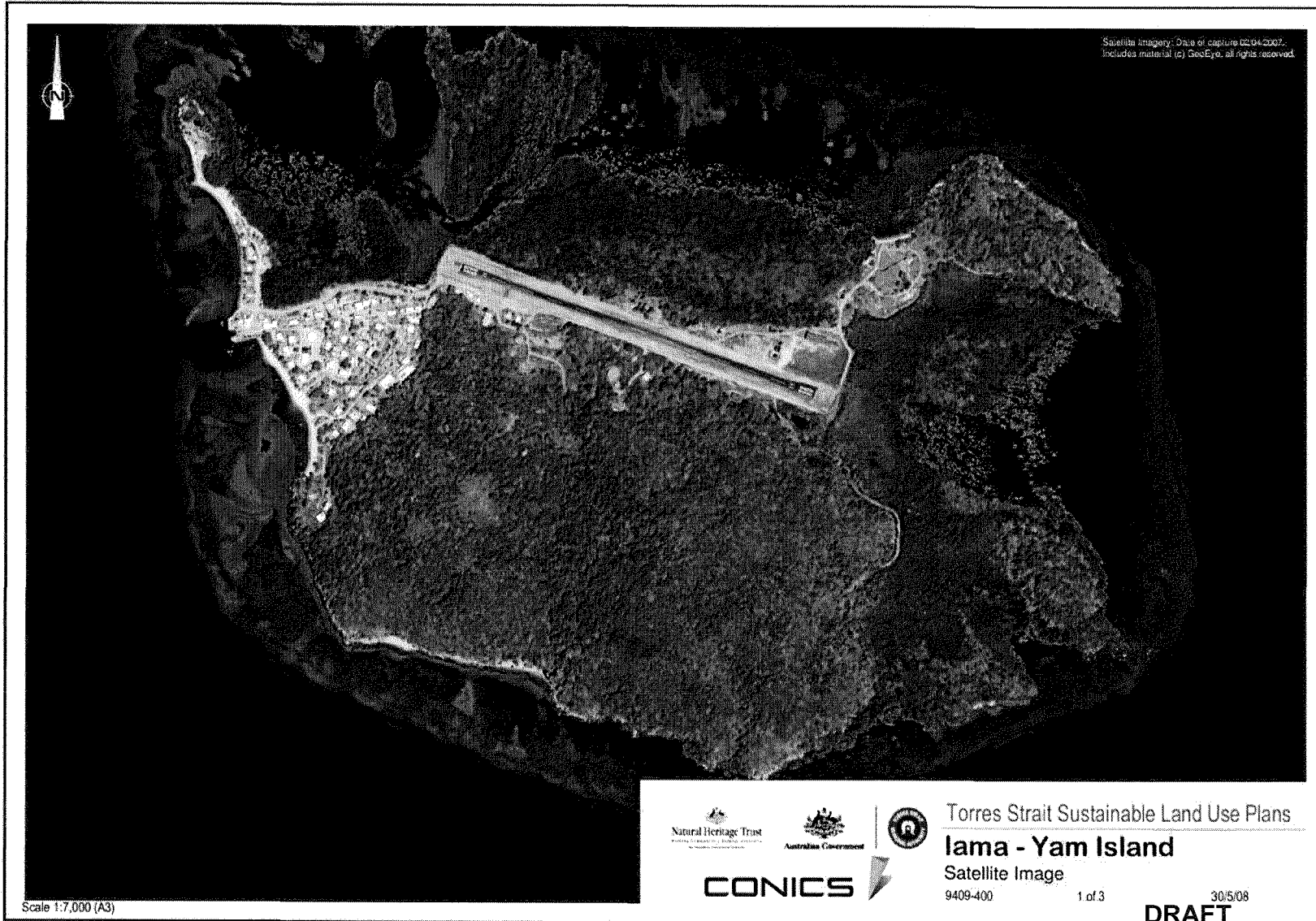
Figure 4 – Saibai Island late January 2006 (courtesy Qbuild).



Australian Government



Iama Island



Scale 1:7,000 (A3)



Torres Strait Sustainable Land Use Plans

Iama - Yam Island

Satellite Image

9409-400

1 of 3

30/5/08

CONICS

DRAFT



Australian Government



Iama Island





Australian Government



Iama Island



28.02 15:15



Australian Government



Iama Island



28.02 15:23



Australian Government



lama Island





Australian Government



Iama Island





Australian Government



Poruma Island



30/01/2006



Australian Government



Poruma Island





Australian Government



Warraber Island

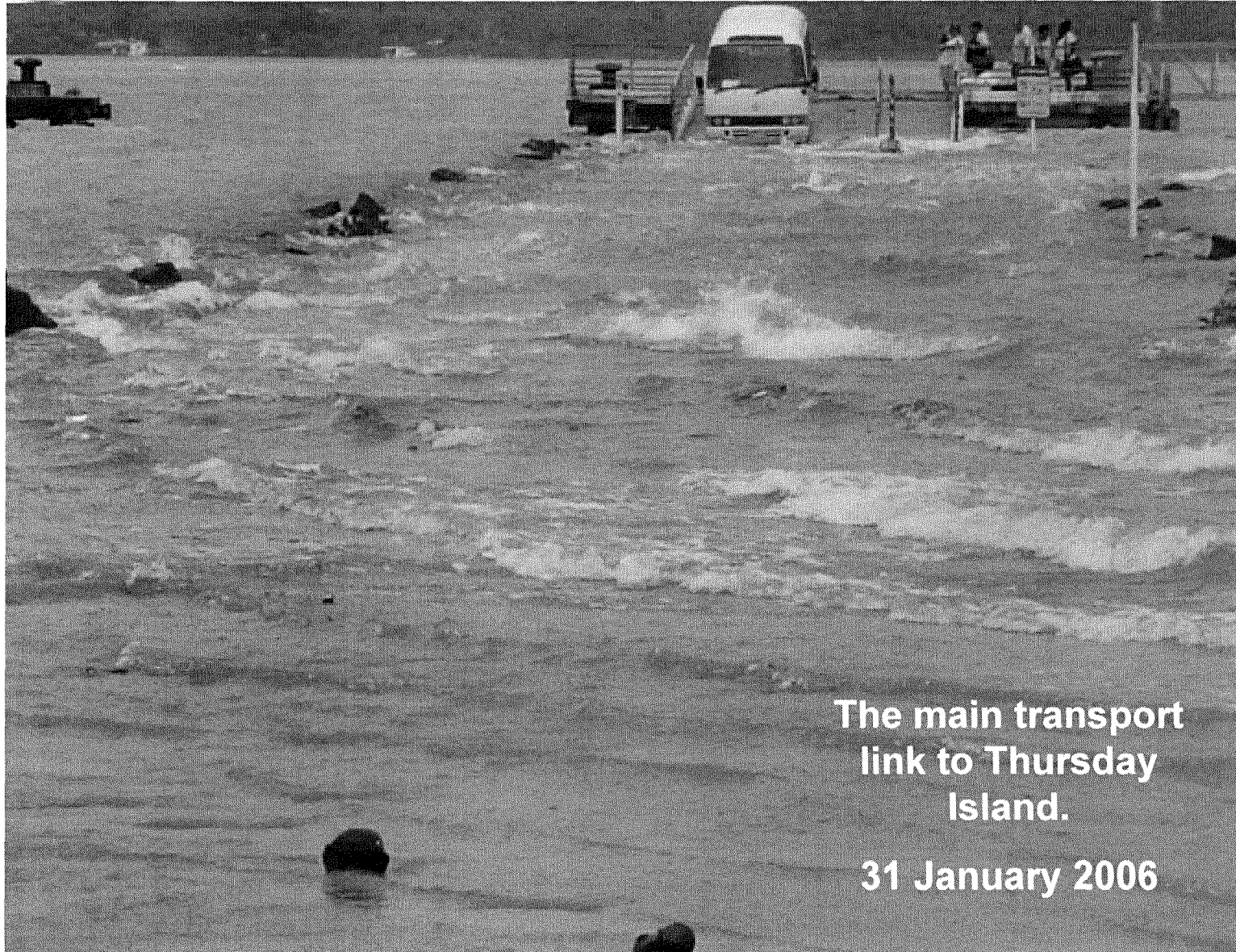




Australian Government



Horn Island



The main transport
link to Thursday
Island.

31 January 2006



Australian Government



Issues

- Erosion and inundation is already a major hazard threatening communities, cultural heritage sites and infrastructure in the region.
- The impact of sea level rise in combination with extreme weather events leading to tidal inundation and island erosion is of significant concern for residents of the Torres Strait.
- Impacts of climate change on marine ecosystems and fisheries and flow on effects to local communities, economy and culture.
- Impacts of climate change on water supply.
- Impacts of climate change on health including the potential spread of disease.



Management Considerations

- Complex international border issues
- Native Title
- Lack of Local Capacity/high cost of works
- Lack of local data/science
- Lack of funding



Australian Government



Co-ordination

- TSRA co-ordinates the Torres Strait Coastal Management Committee as a whole of Government/community forum for addressing coastal issues.
- Several projects underway/or recently completed with help of EPA, JCU, MTSRF and others. (as detailed on pages 4-5 of our submission).
- Applications for funding to implement identified solutions (NDMP) have been unsuccessful.



Australian Government



TSRA Submission Recommendation 1

That there is further support for all Torres Strait Island communities and regional institutions to access information about projected climate change impacts at a locally and regionally relevant scale, to enable informed decision making and adaptive planning.

For example:

- Regional sea level rise
- Storm surge and other influences on sea level extremes
- Winds (averages and extremes)
- Waves (averages and seasonal extremes)
- Water temperature and chemistry (ph)



TSRA Submission Recommendation 2

That there are further studies of island processes and projected climate change impacts on island environments, including uninhabited islands with problems such as turtle nesting failures.

- Simple models of beach response to sea level rise don't apply in complex island settings where processes are also strongly influenced by wind, waves and tides.
- Ideally Island by Island coastal process modelling to determine current processes and hazards and impacts from potential changes to sea level, winds and waves.



TSRA Submission Recommendation 3

That reliable data is obtained on island interior heights and elevations to support more accurate predictions of inundation levels.

Improved bathymetric data to undertake modelling and a network of tide gauges is critical to improve knowledge of tidal levels and storm surges.



TSRA Submission Recommendation 4

That a feasibility study be undertaken to investigate and recommend the most suitable renewable energy systems for servicing the Torres Strait region, including the investigation of tidal, wind, solar and other systems suitable for the region's environmental conditions and demand for power.



Australian Government



TSRA Submission Recommendation 5

That the Torres Strait region is considered as a potential case study for small scale trials of solutions to coastal erosion and inundation problems, as well as sustainable housing and building design and construction for remote communities in tropical environments.

The Torres Strait Coastal Management Committee will work on long term strategies to address impacts on communities but if the higher climate change scenarios eventuate considerable financial assistance will be required to defend against rising water levels.



Australian Government



Thank You