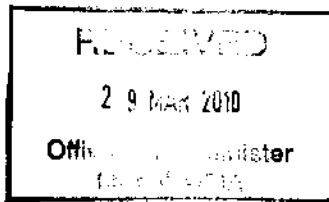


MINUTE

Department of Families, Housing, Community Services and Indigenous Affairs



MaPS.Net PDR Id	MN10-000197	
Due Date	[due in MO 10 days prior to critical date]	
Critical Date	[date of event, meeting etc]	
Consultation	Media	Yes/No
	Group Manager	Yes/No
	Deputy Secretary	Yes/No
	State Manager	Yes/No

To the Minister for Families, Housing, Community Services and Indigenous Affairs
For information

Subject: Tidal inundation and erosion in the Torres Strait

Purpose: The Torres Strait Regional Authority (TSRA) has sent you a minute recommending *inter alia* that there be a whole of government management strategy for coastal erosion and inundation in the Torres Strait

s22

Issue: We agree that the problems confronting the region are serious and urgent and note that the House Standing Committee on Climate Change, Water, the Environment and the Arts in the recent report of its *Inquiry into climate change and the environmental impacts on coastal communities* also recognised this.

This is not an Indigenous-specific problem and an approach needs to be considered in the context of the overall policy on climate change and in consultation with the Queensland Government.

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The remediation works for which the TSRA sought funding should normally be the responsibility of the state and local government as they would be anywhere else in the country. What sets the region apart though is its strategic importance as Australia's northern border and the pivotal role the TSRA plays in being the conduit into the community for the many other government agencies with a presence there. The significant investment the Australian Government has made and continues to make in the region through the TSRA and programs such as CDEP and the Major Infrastructure Program also needs to be considered. Events that have a serious effect on the viability of Torres Strait communities will have an adverse impact on a range of Australian Government operations in the region.

With that in mind, we have been discussing the issue with other relevant departments and most recently met with the Department of Climate Change and Energy Efficiency (DCCEE). While DCCEE has no relevant program funds it does have overall responsibility for climate change strategy and will therefore jointly with us lead in developing a proposed response to put to Government. An issues paper is currently in preparation and once completed it will form the basis of discussion with a range of affected agencies. We understand Minister Wong is proposing to visit the region to assess the problem.

Media Release: N/A

Recommendation:

1. That you note the proposed process for addressing climate change issues in the Torres Strait. (Noted) Please Discuss

2. That you sign the attached letter to the Chair of the TSRA

will it be urgent when completed?
(Signed/ Not Signed)
D. March
5-4-10

~~IN CONFIDENCE~~

s47F

25 March 2010

~~Branch Manager~~
Indigenous Programs
Phone/mobile: s47F

Contact Officer: s47F
Phone/mobile: t

~~IN CONFIDENCE~~

Comments (MO use)

Signature:

Date:

ADVISER TO ACTION:

Local Member Advised	State Member Advised
Yes / No	Yes / No
Name of Member	Name of Member

Rating	Quality	Timeliness
Unsatisfactory		
Satisfactory		
Good		



**The Hon Jenny Macklin MP
Minister for Families, Housing, Community Services
and Indigenous Affairs**

*Parliament House
CANBERRA ACT 2600*

*Telephone: (02) 6277 7560
Facsimile: (02) 6273 4122*

MN10-000197

08 APR 2010

Mr John T Kris
Chairperson
Torres Strait Regional Authority
PO Box 261
THURSDAY ISLAND QLD 4875

Dear Mr Kris

I have received a minute from the Torres Strait Regional Authority (TSRA) signed by the General Manager, Mr Wayne See Kee and dated 4 February 2010 on inundation and erosion in Torres Strait communities.

I appreciate the TSRA keeping me informed of climatic events in the region and their impact on communities. I am aware that the situation is serious and that there is some urgency to developing measures to address the immediate and future implications.

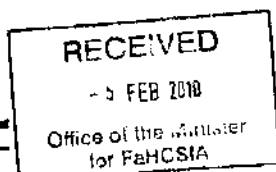
It does however require careful and detailed consideration by a range of Australian Government agencies and by the Queensland and local governments. To this end, my Department and the Department of Climate Change and Energy Efficiency are consulting relevant agencies on possible solutions. The TSRA will of course be involved in this consultation as it progresses, as will the Queensland Government. ^{s47F}
Manager of the Indigenous Programs Branch, is the contact officer. You can contact him ^{s22} on

Thank you again for the comprehensive briefing. I will write to you again when there is an outcome from the current consultations. I am sending a copy of this letter to the Minister for Climate Change and Energy Efficiency, Senator the Hon Penny Wong, for her information.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Jenny Macklin'.

JENNY MACKLIN MP



IN CONFIDE

MINUTE

s47F	
Contact Officer:	
Agency:	Torres Strait Regional Authority
Phone:	s47F
Mobile:	

Minister for Families, Housing, Community Services and Indigenous Affairs

For Information

To provide briefing on tidal inundation and erosion in Torres Strait communities over the January king tide (28 January – 1 February 2010).

Background

1. Each year several Torres Strait communities are subject to inundation during king tides. If accompanied by strong winds these events also result in significant erosion. Typically these events cause damage to infrastructure, inundation of communities, housing, cultural sites, ecosystems and traditional gardens.
2. Worst affected communities include Boigu, Saibai, Warraber, Iama, Poruma and Masig; although several other communities also have erosion and inundation problems.
3. To manage these issues the Torres Strait Regional Authority (TSRA) has strategically undertaken a number of steps to address coastal problems including awareness raising, coordinating science and modelling, developing submissions and funding applications, and lastly, coordinating the Torres Strait Coastal Management Committee which includes representatives from the most affected communities, as well as Local, State and Federal Government and research institutions.
4. Work on coastal vulnerability (risk assessment, planning) is being progressed on priority concerns, with requirements for immediate coastal works identified with the help of the Department of Environment and Resource Management (Qld) and James Cook University (JCU). See Attachment A.

~~IN CONFIDENCE~~

5. The Coastal Management Committee has made several attempts to gain funding for works identified through these studies and to more comprehensively address longer term climate change issues in Torres Strait. These have included:
- Applications under the Natural Disasters Mitigation Program (2007)
 - A 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 (2008)

s22

7. The House of Representatives Standing Committee on Climate Change, Water, Environment and the Arts Report of October 2009, *Managing our coastal zone in a changing climate*, recommended early and urgent consideration of TSRA recommendations with a view to their implementation.
8. It was the Standing committee's view that: "... the communities of the Torres Strait will require greater attention and resource allocation to deal with the impacts of climate change".
9. TSRA has developed a *Draft Torres Strait Climate Change Strategy* to strategically address coastal and climate change concern in the region.
10. Even small increases in sea level due to climate change will have a huge impact on several Torres Strait communities, potentially threatening their viability. Large increases would see several Torres Strait islands completely inundated.

Issues

11. Overall the king tide was not as severe as that experienced in January 2009, owing to generally fine conditions; however parts of Saibai township were subject to inundation, and several other communities suffered from some erosion owing to stronger winds toward the end of the higher tides. Photos can be found at **Attachment B**.
12. To date, no requests for emergency relief from families or individuals have been received by TSRA.

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13. **Saibai:** Portions of the community on Saibai experienced inundation resulting in the flooding of at least one house; water penetration into the sewage system and sewage leakage; damage to the seawall including the development of numerous major scour holes; and, some erosion and undercutting of grave stones as well as partial inundation of the cemetery.
14. **Warraber:** Wave action caused some damage to the sea wall, with overtopping around the barge ramp/wharf flooding the foreshore road. Wave action near the proposed church site damaged interim protection works (large tyres), distributing them further down the beach and eroding the neighbouring foreshore.
15. **Iama:** Wave action overtopped the seawall impacting houses along to the northern spit area. Council and Emergency Services sand bagged the area and the families moved out during the highest of the tides, moving their possessions to higher locations. As yet, no damage to household contents has been reported. Part of the open refuse facility was inundated.
16. **Masig:** Damage was reported to foreshore sheds and one council picnic area/gazebo was washed away.
17. **Poruma:** Minor damage to the seawall. Sandbagging at the resort prevented serious erosion.
18. **Boigu:** Reports aren't confirmed, however, impacts are likely to have been similar to Saibai.
19. **Horn Island:** Commercial wharf/causeway under water.
20. The repeated nature of the king tide events highlights the need for a mitigation package.
21. Further king tides will occur at the end of February and March 2010. Tidal levels in February will be near the January maximum and for Boigu and Badu are expected to be higher (excluding weather effects). Further inundation and erosion may occur.

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Consultation

23. Island communities on Saibai, Warraber, Iama, Masig, Poruma and Boigu were contacted for situation reports together with Emergency Management Queensland and Torres Strait Island Regional Council (TSIRC).

Media Implications

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24. TSRA and TSIRC staff accompanied media representatives on a three-day managed excursion to Saibai and Warraber Islands.
25. The event aimed to increase awareness of the annual king tide event, the extent of the inundation, the associated impacts of the flooding, and the need for urgent action to address this issue, as well as the longer-term implications of sea level rise and climate change on the region.
26. Island representatives and members readily participated in media interviews, welcoming the opportunity to voice their concerns and calls for immediate support for their respective communities.
27. The participating media also received background notes on the issue and access to footage and images from previous years' inundation and erosion impacts.
28. The media contingent was successful in generating local, state and national coverage across all formats, which assured the Australian community could witness the event through first hand evidence of the impacts, and extended the lifespan of the issue in the media.
29. Participating media comprised:
 - a. SBS – TV Journalist ^{s47F}
 - b. National Indigenous Television Network (NITV) – TV Journalist ^{s47F}
Cameraperson ^{s47F}
 - c. Sunday Mail - Senior Journalist ^{s47F} and Photographer ^{s47F}
^{s47F}
 - d. Torres News – Print Journalist ^{s47F}
 - e. 4MW – Radio Journalist ^{s47F}
^{s47F}

Clearance Officer

Name: Wayne See Kee
 Position: General Manager
 Branch: Torres Strait Regional Authority
 Phone/mobile: ^{s47F}
 Date: 4 February 2010

Group Manager consulted	Yes
Deputy Secretary Consulted	No

~~IN CONFIDENCE~~

Attachments:

Attachment A – Coastal Erosion and Inundation Management Activities in Torres Strait

Attachment B – Photos of tidal inundation and erosion associated with January 2010 king tides

Recommendation

- That you note the TSRA has not received any requests for emergency relief from families or individuals to date;
- That you note the contents of the Minute, including the need for a whole of government commitment to addressing the management of coastal erosion and inundation in the Torres Strait in a strategic and long term way; and,

s22

APPROVED / NOT APPROVED
NOTED
SIGNED / NOT SIGNED

...../...../2010

Comments (MO use)

Signature:

Date:

~~IN CONFIDENCE~~

ATTACHMENT A

Coastal Erosion and Inundation Management Activities in Torres Strait

COORDINATION

The Torres Strait Coastal Management Committee was formed by TSRA in 2006 to enable a whole-of-government/community coordinated response to coastal issues.

The membership of the committee includes those communities most affected by coastal issues in the region including Saibai, Boigu, Poruma, Masig, Iama and Warraber, as well as local, Australian and Queensland Government agencies, research entities and technical experts on coastal management issues. Federal Govt representation includes the Department of Climate Change. State Government representation includes the Department of Environment and Resource Management, Department of Communities, Department of Transport and Department of Infrastructure and Planning, and Emergency Management Queensland.

Initially the work of the committee was focused on coastal erosion issues, but more recently the committee has also been working on other issues such as tidal inundation, storm surge inundation and projected climate change impacts in the region.

TSRA coordinates the committee and employs a Coastal Management Officer to provide overall guidance and operational support

The committee has prepared a Draft Climate Change Strategy, which is currently being circulated for comment.

PROJECTS

Torres Strait Regional Authority:

JCU -Long-term Management of Erosion on Cay Islands in the Torres Strait

James Cook University Torres Strait researchers were commissioned to investigate coastal erosion, inundation and sea level rise issues on the central Torres Strait islands. This project, called "*Long-term Management of Erosion on Cay Islands in the Torres Strait*" has been funded through the Natural Heritage Trust. This project has been led by Prof Kevin Parnell.

It was initially focused on Masig, Poruma, and Warraber, but has been extended to include Iama.

The aim of this project is to arrive at long-term solutions by:

- involving communities to identify and prioritise erosion threats;
- identifying the causes of erosion and develop long-term sustainable solutions to work with the natural process; and

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- identifying and understanding the consequences of erosion.

This project focused on longer-term strategic approaches and adaptive planning to manage and mitigate the effects of coastal erosion.

The Project, with community support, has focused on collecting information on currents, wave and wind action, and sand movements as well as changes that are taking place, so that the processes underlying the problem can be understood, and solutions derived that work with, rather than against, the natural environment.

The research has identified credible and achievable options in response to the coastal erosion problem with a good grounding in science.

Sustainable Land Use Planning Project

This project which has been funded through the Natural Heritage Trust and the Major Infrastructure program aims to provide for sustainable land use planning. Constraint mapping includes information on inundation areas, H.A.T. areas, sea level rise, erosion prone areas and coastal management districts, as well as various environment, cultural and infrastructure elements.

The project is being undertaken by conics. Thus far Sustainable Land Use plans have been developed for Boigu, Dauan, Saibai, Erub, Masig and Iama. The remaining communities are currently underway.

LIDAR Mapping of Boigu and Saibai

This project which has been completed aimed to provide High resolution airborne mapping to provide detailed data for the inundation mapping and assessment of adaptations to options.

Torres Strait Inundation Study

This project is being undertaken by Systems Engineering Australia in conjunction with several other modeling specialists. It aims to assess and map potential inundation within Torres Strait communities under current climate and potential future climate.

The project is seen as fundamental to the identification and assessment of adaption/mitigation options for current coastal hazards as well as future climate change.

Sustainable Energy Study

This project is being undertaken by the Centre for Appropriate Technology and aims provide the basis for a regional energy strategy. It involves investigation of current energy usage patterns and habits and island appropriate ways to reduce energy usage, and improve energy efficiency as well as appropriate alternative and renewable energy sources.

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Tide Gauge Project

Funding has been allocated through the Major Infrastructure Program to install tide gauges in Torres Strait to assist in the management of storm tide inundation and long term sea level change. The project will aim to assist in both monitoring of sea level for long term management as well as assist in warning associated with disaster management.

Negotiations with DERM and MSQ are underway in relation to gauge design and potential incorporation with the state storm tide monitoring network along with ongoing maintenance. As yet a partner or funding for ongoing running of these gauges has not been secured.

Department of Environment and Resource Management:

Rapid Assessment Report

The EPA has completed a Rapid Assessment of coastal erosion on six islands (Boigu, Masig, Saibai, Poruma, Warraber and Iama). The assessment involved an investigation and assessment of erosion issues including:

- identification of the causes of erosion,
- recommending management actions; or
- identifying what further information or investigation is required before management actions can be decided; and
- allocating a priority rating for the problem to guide future allocation of resources.

The rapid assessment process has recommended a suite of mitigation works including seawall repair and upgrade, as well as sand renourishment and environmental restoration, together with further studies where knowledge of the causes of erosion was thought to be inadequate.

DERM has provided some funding to TSRA to enable detailed engineering design of the works identified through this and the JCU project.

Tidal Datums

This project is being co-ordinated by the Qld Department of Environment and Resource Management to more accurately establish island datum's relative to sea level. This is considered essential to the mapping and assessment of inundation and sea level rise issues. The project involved Griffith Uni and the Deployment of tide gauges for a 35 days around the islands. The results of this project are currently being updated by MSQ due to concerns with the period of data collection and other technical issues. The review is due to be finalised in the near future.

Marine and Tropical Sciences Research Facility:

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Climate change impacts in the Torres Strait: Building resilience and planning adaptation strategies

This project is being undertaken by JCU. It is designed to establish ways to increase communities' abilities to deal with environmental change by integrating scientific and traditional knowledge.

Condition Trends and Projected Futures of Marine Species of Conservation Concern

This project being Lead by JCU aims to look at impacts of climate change on Turtle in the Torres Strait which are thought to be highly vulnerable to increasing temperature. The project involves integration of science with the TSRA lead turtle and dugong management planning project.

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ATTACHMENT B

Photos of tidal inundation and erosion associated with January 2010 king tides



Saibai 29 Jan 2010: Flooding of low set house.



Saibai 29 Jan 2010: Inundation of parts of the township

~~IN CONFIDENCE~~



Saibai 30 Jan 2010: Erosion of graves



Saibai 29 Jan 2010: inundation of part of the cemetery

~~IN CONFIDENCE~~



Saibai 29 Jan 2010: Sewage spill



Warraber 31 Jan 2010: Erosion near church site

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lama 31 Jan 2010: Wave overtopping impacting housing on Spit area