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Cairns Convention Centre  
Queensland, Australia  
8 - 12 April 2013

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## Review of the Australian National Plan Post Deepwater Horizon, Montara and other Notable Maritime Incidents



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オーストラリア海事安全局



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# Presentation outline

- ▶ Overview of Australia's National Plan
- ▶ Government Response to the Report of the Montara Commission of Inquiry
- ▶ Review of Australia's National Plan
- ▶ The Det Norske Veritas 2011 Assessment of Risk of Pollution from Marine Oil Spills
- ▶ Review outcomes/Work in progress
- ▶ The Future



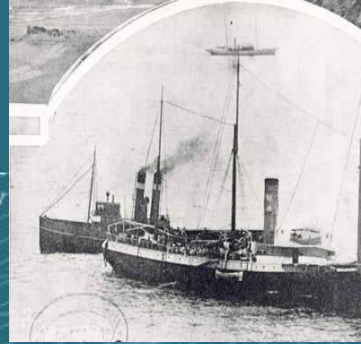
# Operating Environment

- Australia is the largest island nation in the world
- 3rd largest EEZ – 8.232 million km<sup>2</sup>,
- 60,000 km of coastline with 12,000 islands
- 79 ports receive 23,700 international visits
- 10% of earth's surface equates to SAR Region
- 10% of world sea trade
- Covers 5 of world's ocean climate zones
- 6 maritime boundaries





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# Australia's National Plan

- ▶ **National Plan for Marine Environmental Emergencies**
  - ▶ National integrated Government and industry organisational framework enabling effective response to maritime casualties and marine pollution incidents. The Australian Maritime Safety Authority (AMSA) manages the National Plan, working with State/Northern Territory (NT) governments, the shipping, oil, salvage, exploration and chemical industries, emergency services to maximise Australia's marine pollution response capability.
  - ▶ Quarterly shipping levy applies to ships carrying oil as cargo or ships bunkers, based on tonnage of vessel



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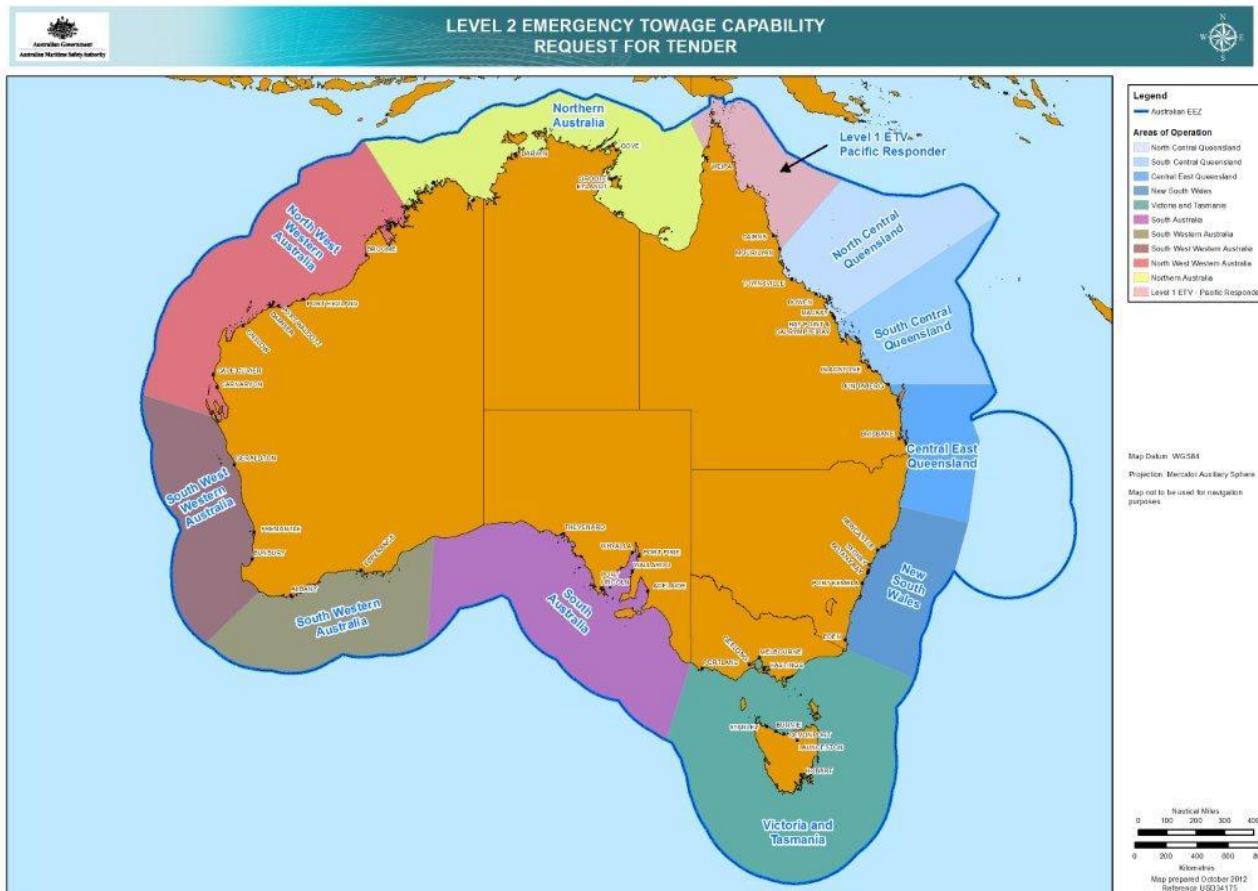
# Emergency Towing Vessel (ETV) Program

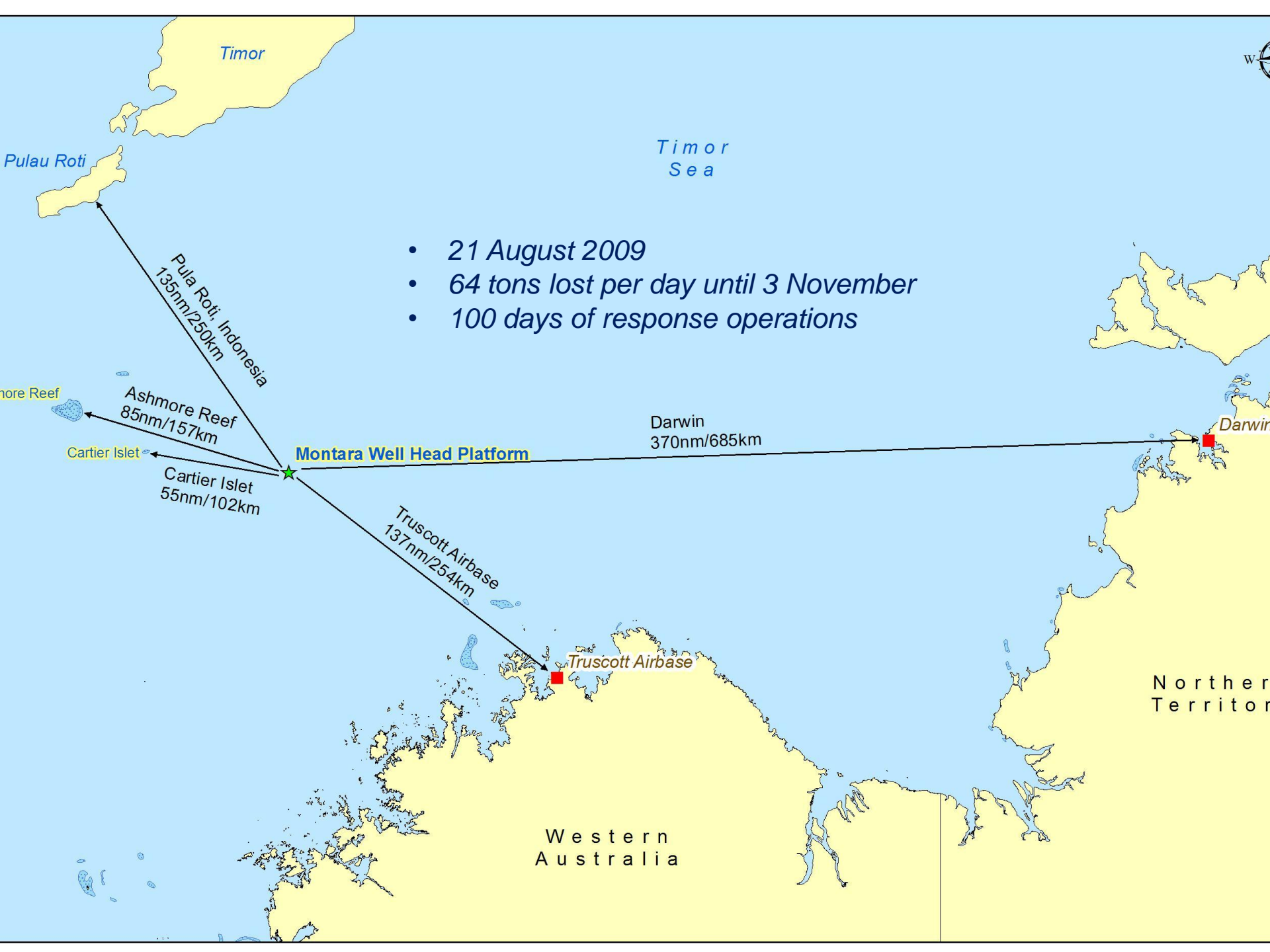
- ▶ Minimum level of towage capability around coast.
- ▶ Commenced in July 2006.
- ▶ Capability is provided by contractors.
- ▶ Three tiers:
  - Level 1: dedicated ETV in northern GBR/Torres Strait/Coral Sea
  - Level 2: contracted capability in strategic locations
  - Level 3: vessels of opportunity.





# Strategic Regions by type of ETV Capability





- 21 August 2009
- 64 tons lost per day until 3 November
- 100 days of response operations



Hibernia Reef  
(AUSTRALIA)

Ashmore Reef

West Islet

Middle Islet

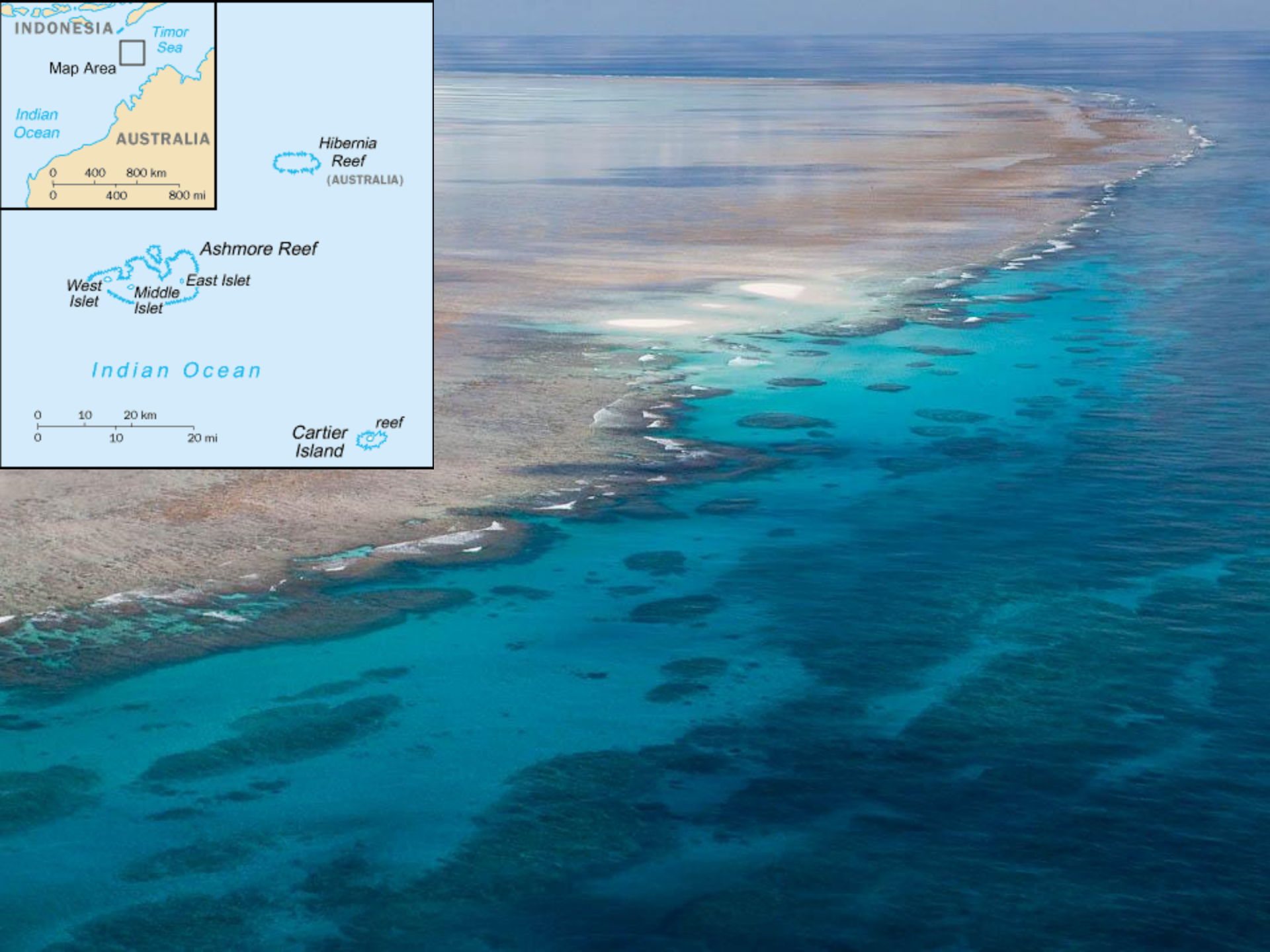
East Islet

Indian Ocean

0 10 20 km

0 10 20 mi

Cartier Island reef









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## Montara Commission of Inquiry

- ▶ **Report released 24 November 2010, 100 findings and 105 recommendations**
- ▶ **Concluded that the source of the blowout was the result of the primary well control barrier failing**
- ▶ **Compounded by only 1 of the 2 planned secondary well control barriers being installed**
- ▶ **Inquiry also examined the environmental response**
- ▶ **7 findings and 13 recommendations on environmental issues (Chapter 6)**



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# Montara Commission of Inquiry

- ▶ “It is apparent that the overall response objective of preventing oil from impacting on sensitive marine resources ...was largely achieved.”
- ▶ “The Inquiry has concluded that the use of dispersants was appropriate...”
- ▶ “The Inquiry considers that AMSA responded exceptionally well to an incident that was beyond its first hand experience and in a remote and difficult location. AMSA should be commended.”



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## Montara Commission of Inquiry – Government Response

- ▶ Establishment of National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) on 1 January 2012
  - ▶ Explanatory note with AMSA – ‘Oil Spill Preparedness and Response Arrangements for Offshore Petroleum Activities in Commonwealth Waters’
- ▶ Industry developing an Australian Well Capping and Containment Solution
  - ▶ Subsea First Response Toolkit to be located in Australia
- ▶ Department of Resources, Energy and Tourism (RET) will develop an incident management and coordination framework for dealing with incidents involving the offshore petroleum industry
- ▶ Australian Marine Oil Spill Centre reviewing preparedness and response arrangements.



## Montara Commission of Inquiry – Government Response

- ▶ Comprehensive consultation on approval of oil spill contingency plans for offshore facilities
  - ▶ Has not previously involved AMSA
- ▶ Assessing the risks associated with offshore oil and gas exploration
- ▶ More rapid implementation of scientific monitoring
- ▶ Clarify responsibility for provision of scientific advice
- ▶ Review of Commonwealth legislation to identify “legislative gaps”
- ▶ Equitable cost sharing arrangements between the offshore petroleum and shipping industries for both spill preparedness and response capability



# National Plan/NMERA Review

## ▶ Commenced January 2011, completion 2012

- ▶ To determine if current arrangements are adequate to provide an effective response to marine casualties and pollution of the sea
  - and to meet Australia's obligations as a signatory to the OPRC Convention and OPRC-HNS Protocol
- ▶ Make recommendations to rectify any deficiencies identified

## ▶ Takes into account

- ▶ *“changes in shipping patterns and associated risks as a result of expansion of the petroleum, LNG and minerals sectors”*
  - *Significant growth in resource ports expected over next 10 years*
- ▶ *“increasing activity in the offshore petroleum and gas exploration and production industry in remote locations and in deep water.”*



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# National Plan/NMERA Review - Projects

- ▶ **Assessment of the Risk of Pollution from Marine Oil Spills in Australian Ports and Waters**
  - ▶ Undertaken by Det Norske Veritas (DNV)
  - ▶ Reflects IMO Environmental Risk Evaluation Criteria (2011)
  - ▶ Report issued December 2011
- ▶ **Review of National Plan/NMERA**
  - ▶ Undertaken by Parsons Brinkerhoff/Thompson Clarke Shipping
  - ▶ Final report issued March 2012
  - ▶ Takes into account
    - DNV Risk Assessment outcomes
    - Relevant recommendations - Montara Commission of Inquiry Report



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# DNV Risk Assessment - stakeholders consulted

## ▶ **National Plan Management Committee**

- ▶ All States/NT
- ▶ Ports Australia
- ▶ Great Barrier Reef Marine Park Authority
- ▶ Australian Institute of Petroleum/Australian Marine Oil Spill Centre
- ▶ Australian Shipowners Association
- ▶ Plastics and Chemicals Industry Association
- ▶ Department of Infrastructure and Transport
- ▶ Maritime New Zealand

## ▶ **Plus**

- ▶ Shipping Australia Limited
- ▶ Department of Resources, Energy and Tourism
- ▶ Australian Petroleum Production and Exploration Association
- ▶ Department of Sustainability, Environment, Water, Population and Communities

## ▶ **And data from**

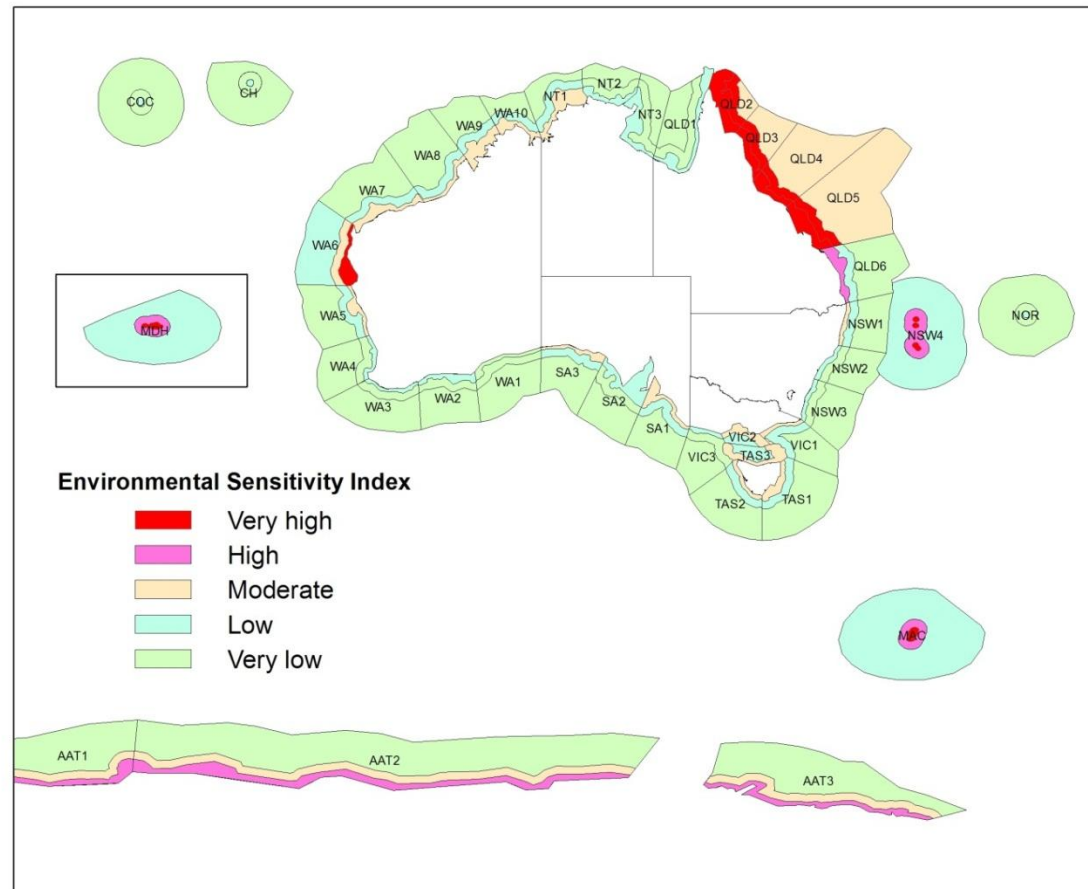
- ▶ Geoscience Australia
- ▶ Bureau of Infrastructure, Transport and Local Economics
- ▶ Australian Bureau of Agricultural and Resource Economics
- ▶ Bureau of Meteorology





# Environmental Sensitivity

- ▶ “Average environmental impact of a tonne of oil spilled in a specific location.”
- ▶ Takes into account
  - ▶ Habitats
  - ▶ Species present
  - ▶ Commercial resources
  - ▶ Socio-cultural impacts
  - ▶ Difficulty of cleanup and recovery after a spill



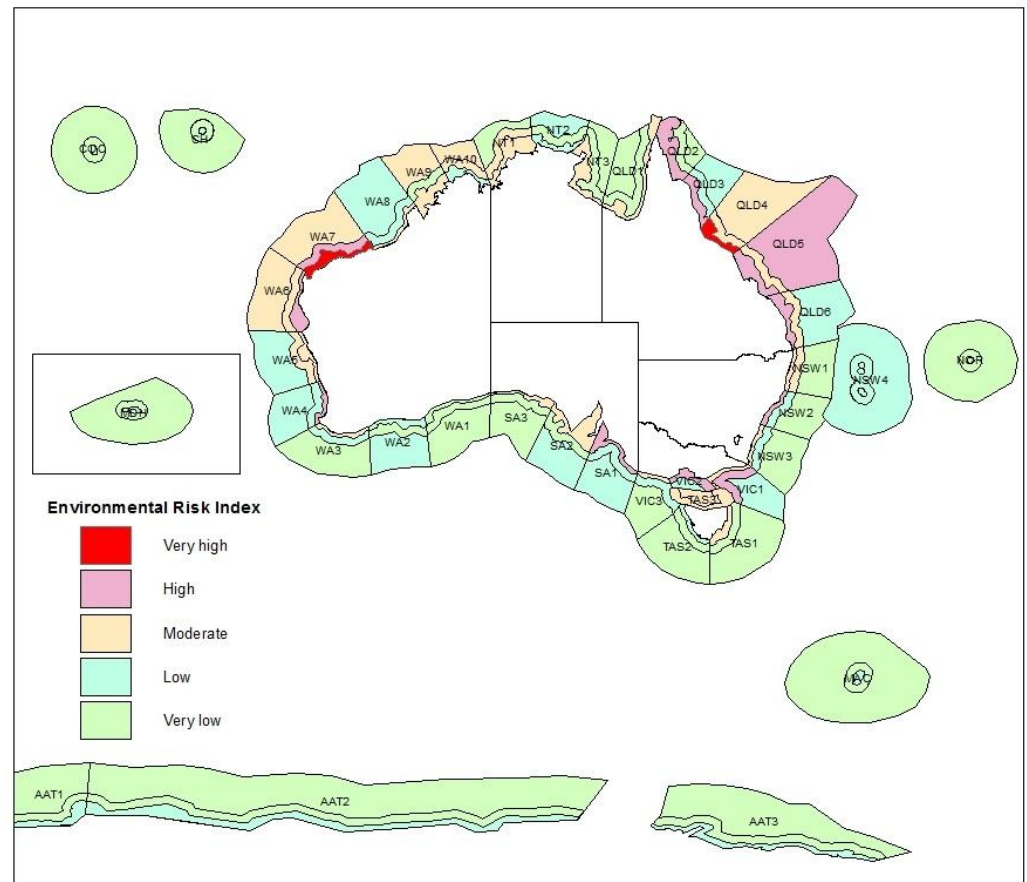


# Environmental Risk Indices

Expected annual cost of oil spilled into the marine environment, taking into account

- Oil type
- Oil weathering
- Oil transport (spreading, drifting, beaching, etc)
- Oil spill mitigation

CATEGORY	ERI (million A\$ per year)
Very high	>1
High	0.1 to 1
Moderate	0.01 to 0.1
Low	0.001 to 0.01
Very low	<0.001





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# DNV Risk Assessment - Results for 2020

- ▶ Increase of 79% in total national port traffic
- ▶ Increase of 81% in total national traffic
- ▶ Small commercial vessels assumed to remain at present levels
- ▶ Offshore drilling assumed to remain at current levels
- ▶ Offshore oil production to reduce by 89%
- ▶ Condensate production to increase by 73% (overall decline by 35%)
- ▶ Shore based oil consumption to increase by 14%



# National Plan/NMERA review - Approach

- ▶ The review was informed by:
  - ▶ Extensive stakeholder consultation (Mar– May 2011)
  - ▶ Consideration of written submissions (Mar – Jun 2011)
  - ▶ Review of related documentation provided prior to and during the consultation and draft report preparation process
  - ▶ Observations and existing knowledge and understanding within the review team (consultants)
- ▶ The conclusions drawn by the review team in some cases were in close alignment with stakeholder views. In other cases, the review teams views differ to those of some stakeholders.
- ▶ Strategic Stakeholder Group formed to oversight project and provide feedback during the review process.



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# Review Outcomes/Current Work Plans

- ▶ 70 recommendations, implementation over next 18 months
- ▶ New Governance structure
  - ▶ first meetings held late 2012
- ▶ Closer links to OPRC Convention/OPRC-HNS Protocol
- ▶ Align pollution response to broader emergency response structure
  - ▶ Australasian Inter-Service Incident Management System (AIIMS)
- ▶ Retain nine equipment stockpiles
  - ▶ AMSA Tier 2/Tier 3 equipment stockpiles of Dampier and Townsville adjacent to the very high maritime risk areas to be upgraded
  - ▶ \$A25 million program of equipment replacement and refurbishment



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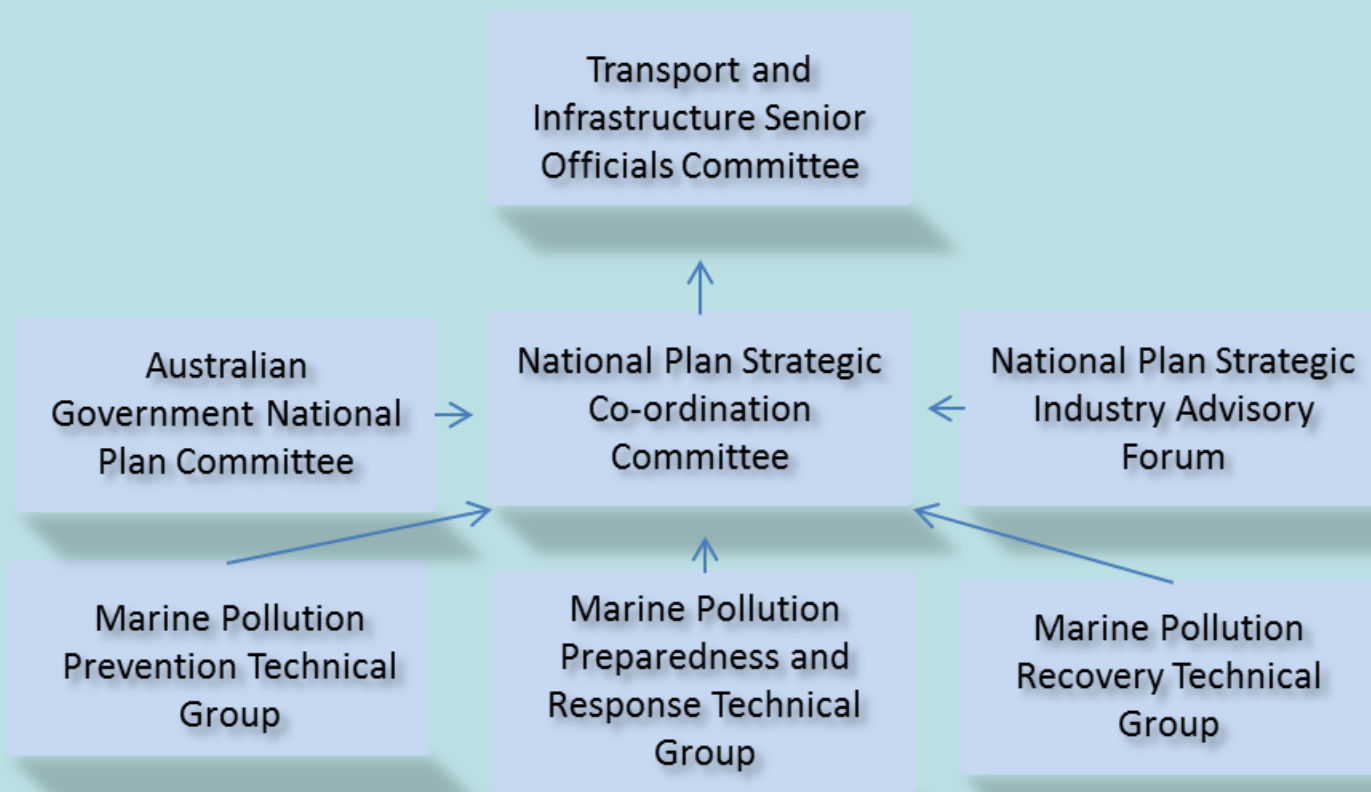
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# Review Outcomes/Current Work Plans

- ▶ Integration of pollution and maritime casualty into a single National Plan
- ▶ New agreement with Commonwealth Scientific and Industrial Research Organisation for scientific advisory services
- ▶ Upgrade Research and Development Strategy
- ▶ New Level 2 Emergency Towage Vessel Contract
- ▶ New Level 1 Emergency Towing Vessel Contract
- ▶ Continuation of stockpile replenishment and refurbishment
- ▶ New Storage and Maintenance contracts
- ▶ Further engagement with maritime boundary States
- ▶ Completion of all accepted National Plan Review recommendations



## Governance of The National Plan





# Future Challenges

- ▶ Effectively responding to increasing government and community awareness and expectations.
- ▶ To provide appropriate resources and support systems for effective response to oil and chemical pollution incidents.
- ▶ To review and update our National Plan to reflect changing risk profiles, and improving response arrangements and technologies.
- ▶ Ensuring the ongoing effectiveness of the National Plan in a changing environment.





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Thank You / ありがとう

