Australian Government
Department of the Environment, Water, Heritage and the Arts

November 2009

DESCRIPTION OF AREAS FOR FURTHER ASSESSMENT IN THE NORTH MARINE REGION

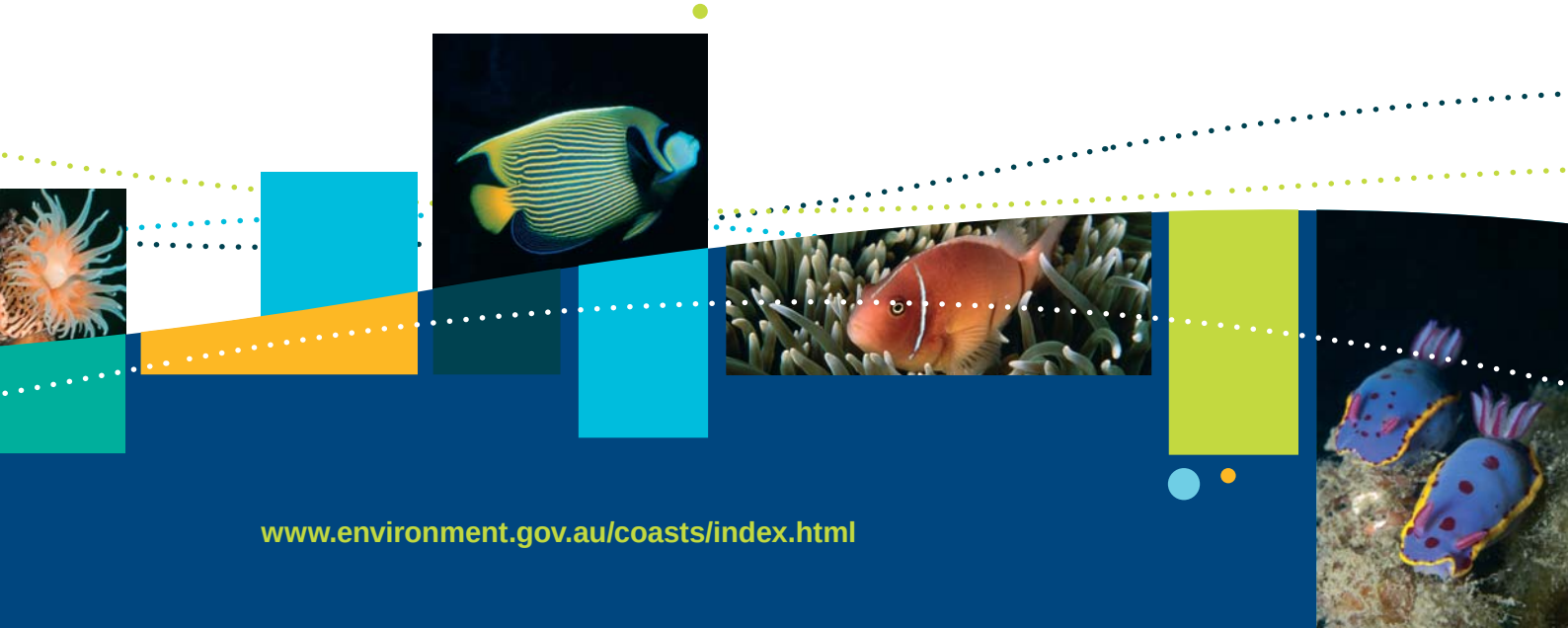
This document provides a broad description of the five Areas for Further Assessment of the North Marine Region that have been identified as part of the Australian Government marine bioregional planning process. Comprehensive information on the marine environment within the North Marine Region may be found at www.environment.gov.au/coasts/mbp/north/index.html.

The shapefiles and metadata for the Areas for Further Assessment may be obtained by emailing mbp.north@environment.gov.au

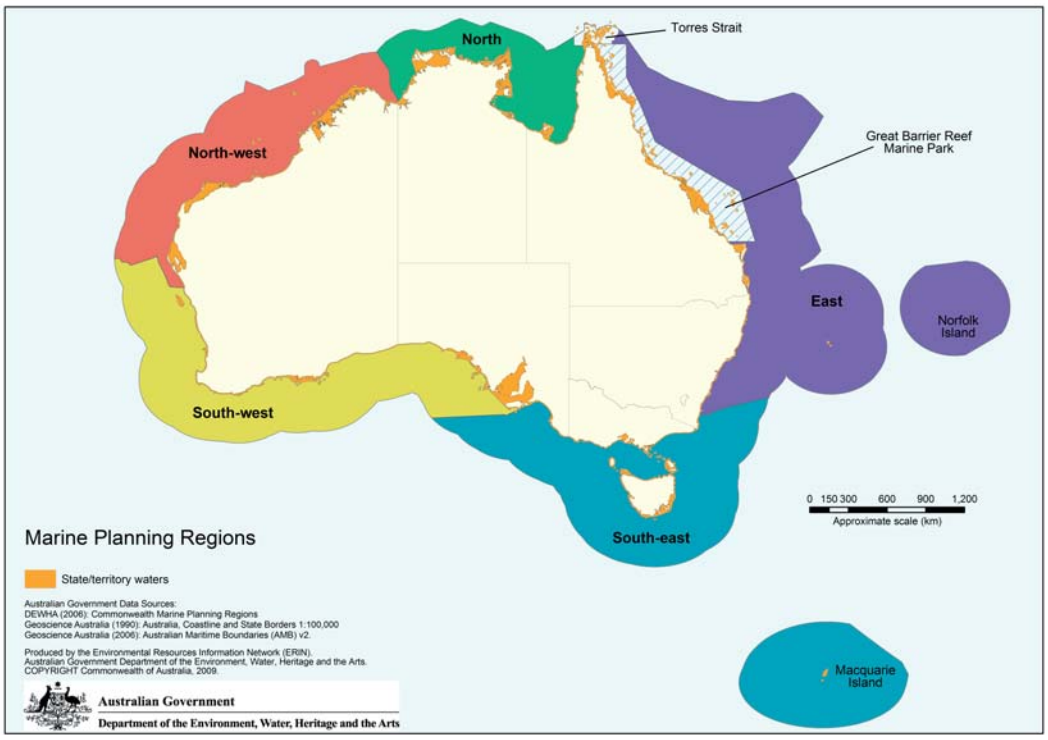
What is marine bioregional planning?

Australia's marine bioregional planning program is designed to provide a clearer focus on conservation and sustainable management of Australia's marine environment. It is a process that is underpinned by the principles of ecologically sustainable development and it takes an ecosystem approach in managing Australia's marine biodiversity and environment.

Marine bioregional planning is currently being implemented in five marine bioregional planning regions - the South-west, North-west, North, East and South-east Marine Regions (Map 1).



Map 1: Marine Bioregional Planning Regions



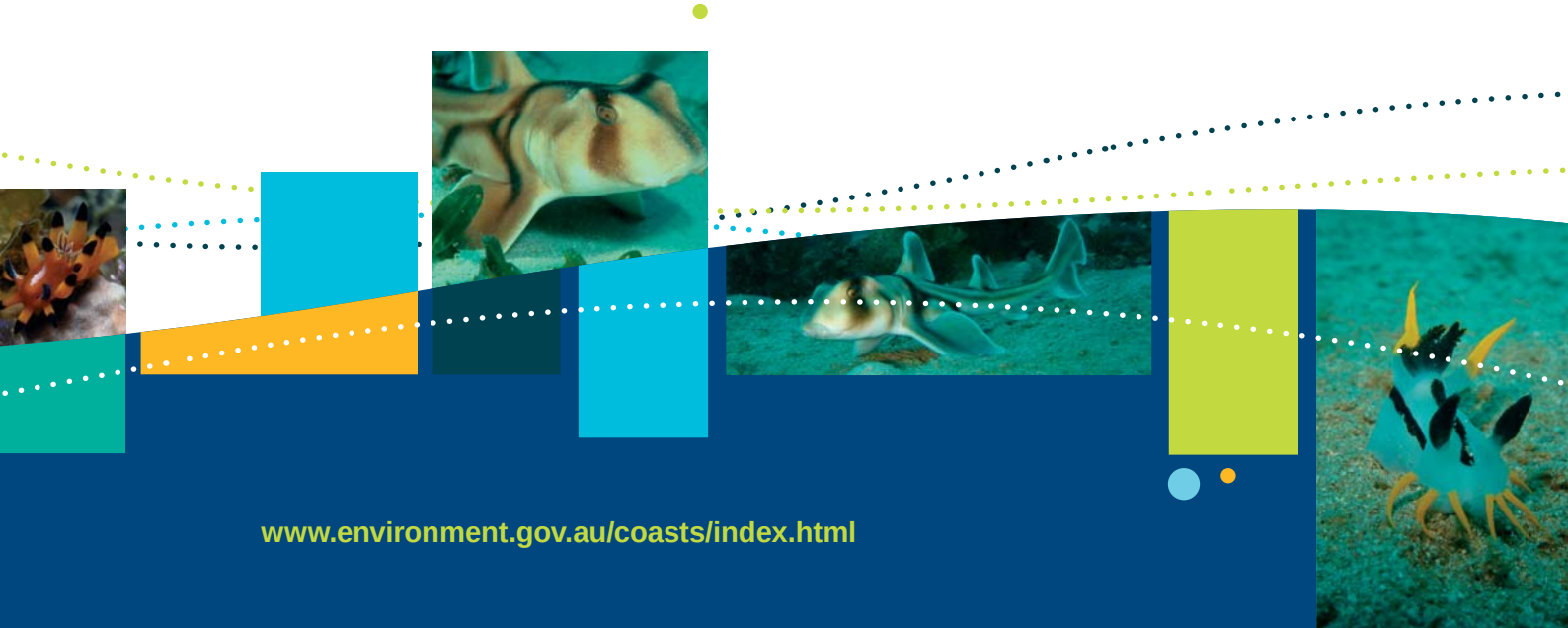
Where is the North Marine Region?

The North Marine Region covers more than 715,000 square kilometres of ocean covering the Gulf of Carpentaria, Arafura Sea and the Timor Sea as far west as the Northern Territory – Western Australian border.

The Region is characterised by very shallow-water tropical marine ecosystems with water depths generally less than 70 metres. From a global perspective, the Region is part of a vast species-rich belt of waters stretching from the western Pacific to the East coast of Africa. Endemism is not particularly high by Australian standards, however like the North-west, the North Marine Region is home to globally significant populations of internationally threatened species.

What does marine bioregional planning involve?

The marine bioregional planning process focuses primarily on Commonwealth waters (the area of Australian jurisdiction that extends past state/Northern Territory waters from around 3 nautical miles to the outer limits of the Exclusive Economic Zone some 200 nautical miles from the shore).



Marine Bioregional Plans are being developed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and will fulfil the Australian Government's commitment to establishing a National Representative System of Marine Protected Areas as agreed by all Australian governments in 1998.

There are two major parts to the marine bioregional planning process: ***regional assessment*** and implementation of Australia's ***National Representative System of Marine Protected Areas.***

Regional assessment involves identification of the conservation values of each Marine Region, analysis of the threats to those values, and identification of measures required to protect those values and facilitate decision-making under the EPBC Act.

Regional networks of new representative marine reserves will also be identified through the marine bioregional planning process. These regional networks will become part of Australia's National Representative System of Marine Protected Areas (NRSMPA).

The marine bioregional planning process involves three key steps: preparation of a Bioregional Profile, development of a draft Marine Bioregional Plan, and completion of a final Marine Bioregional Plan.

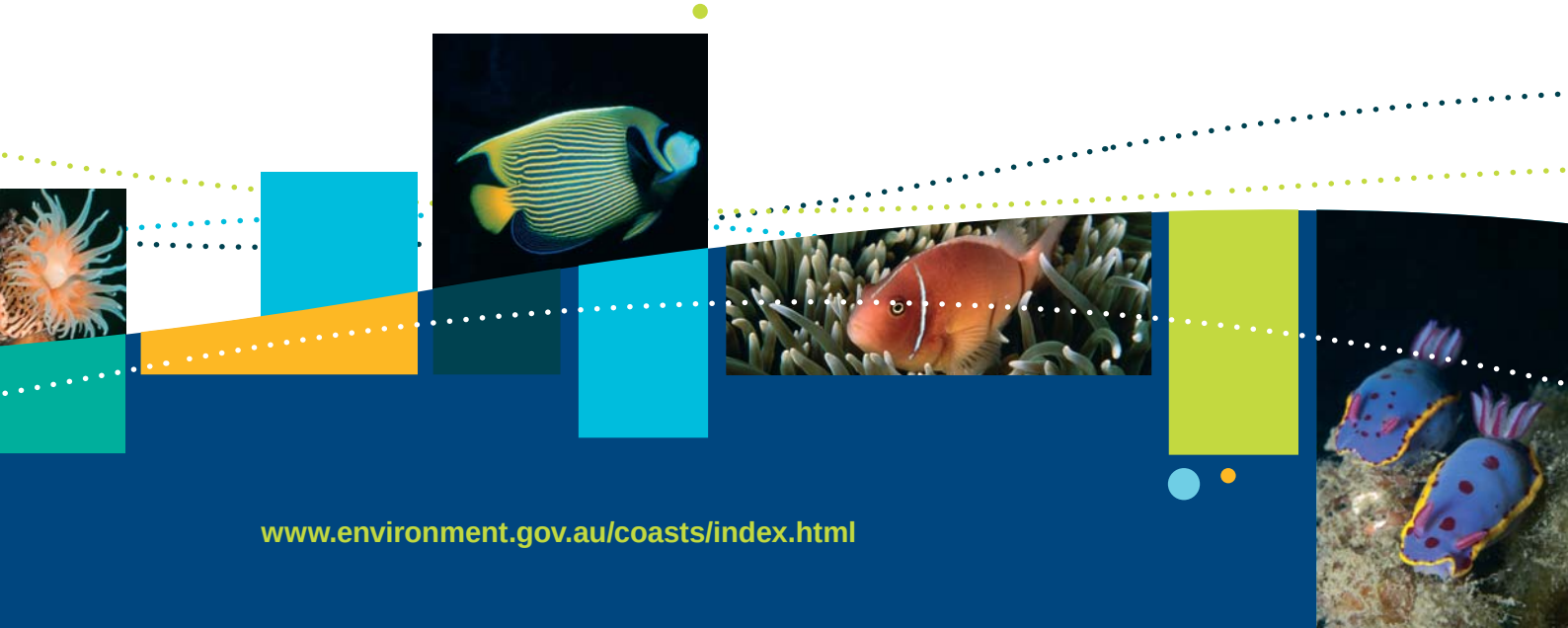
The Bioregional Profiles describe the ecological and biophysical features and the conservation values of each Region and outline human activities that occur within each Region. The Goals and Principles that guide the identification of new marine reserves are also described. Bioregional Profiles have been released for the East, North, North-west and South-west Marine Regions.

Draft Marine Bioregional Plans are currently being developed for each Marine Region. Each draft Plan will outline a draft network of proposed marine reserves and identify regional priorities and conservation measures. A minimum 60 day consultation period will follow the public release of the draft Plans.

The final Marine Bioregional Plans will provide information on the conservation values and the current and emerging pressures within each region. The Plans will describe key conservation and heritage priorities and the range of legislative and administrative tools available to the Government to manage them. The proposed network of new marine reserves and their zoning arrangements will also be presented. All Marine Bioregional Plans are scheduled to be completed during 2010.

What is a marine reserve?

Marine reserves (sometimes also called marine protected areas or marine parks) are any area of the ocean which has been reserved by law or other effective means for the purposes of marine biodiversity protection.



Why are we developing new marine reserves?

Australia has national and international commitments to implement a National Representative System of Marine Protected Areas (NRSMPA) by 2012. The primary goal of the NRSMPA is to establish and manage a comprehensive, adequate and representative system of marine reserves to contribute to the long-term conservation of marine ecosystems and to protect marine biodiversity at all levels.

How are new marine reserves being identified?

In 1998 the Australian and New Zealand Environment and Conservation Council released the *'Guidelines for establishing the national representative system of marine protected areas'* (the Guidelines). The Guidelines provide for nationally consistent framework for identifying new marine reserves and they emphasise the strong role that science needs to play in the process. The Guidelines allow for each government in Australia to develop its own approach and policy for implementing them.

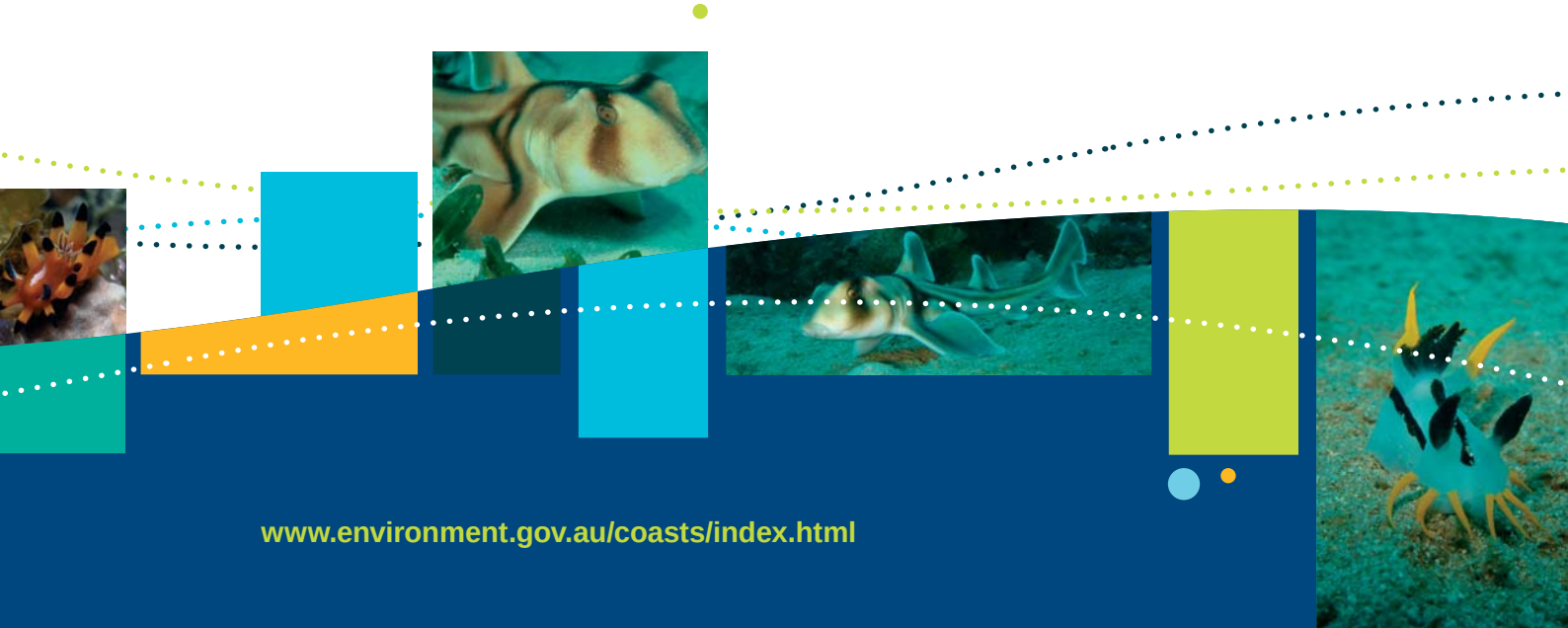
The Australian Government policy for implementing the Guidelines and identifying suitable areas for inclusion in the NRSMPA is the Goals and Principles for the *Establishment of the National Representative System of Marine Protected Areas in Commonwealth Waters* (the Goals and Principles). The Australian Government is using these Goals and Principles to gather relevant information, including socio-economic data, and ensure that the identification of new marine reserves is based on systematic and comprehensive analysis of all relevant considerations.

What are Areas for Further Assessment?

Areas for Further Assessment are an important step in refining information on human uses and socio-economic values in the marine environment. They are large areas that encompass examples of the range of biodiversity and ecosystems within each Region and they are identified through assessment of information compiled using the *Goals and Principles for the Establishment of the National Representative System of Marine Protected Areas in Commonwealth Waters.*

Areas for Further Assessment are not the proposed boundaries for new marine reserves. Instead, they are intended to aid further analysis of information at a more detailed scale and assist in the design of new marine reserves.

Based on ecological information and information obtained from key stakeholders on human activities within the Areas for Further Assessment, the location and zoning arrangements of a new network of marine reserves will be developed. This process aims to ensure that conservation outcomes are maximised while socio-economic costs associated with establishing marine reserves are minimised.



www.environment.gov.au/coasts/index.html

Where are the Areas for Further Assessment in the North Marine Region?

Areas for Further Assessment have been identified in the North Marine Region (Map 2) and a detailed description of each area for further assessment is provided below. These areas have been identified on the basis of an analysis of marine species and ecosystems and an initial assessment of human activities in Commonwealth waters. Stakeholders will be consulted to improve information on human activities within these areas, focusing on developing a thorough understanding of the potential socio-economic impacts of new marine reserves that may be established.

What activities are allowed in marine reserves and how will they be managed?

The network of new marine reserves established through the marine bioregional planning process will be zoned to allow different uses to occur within them as long as those uses are consistent with the protection of biodiversity. While new marine reserves will be zoned to allow many uses and activities to continue, highly protected zones within the marine reserve network will also be identified.

What will happen to existing activities that are not allowed within new marine reserves?

A process to develop a policy for managing activities that are impacted through the declaration of new marine reserves is underway. The policy will establish the objectives, principles and directions for addressing the management of impacts arising from the declaration of new reserves, including the displacement of activities.

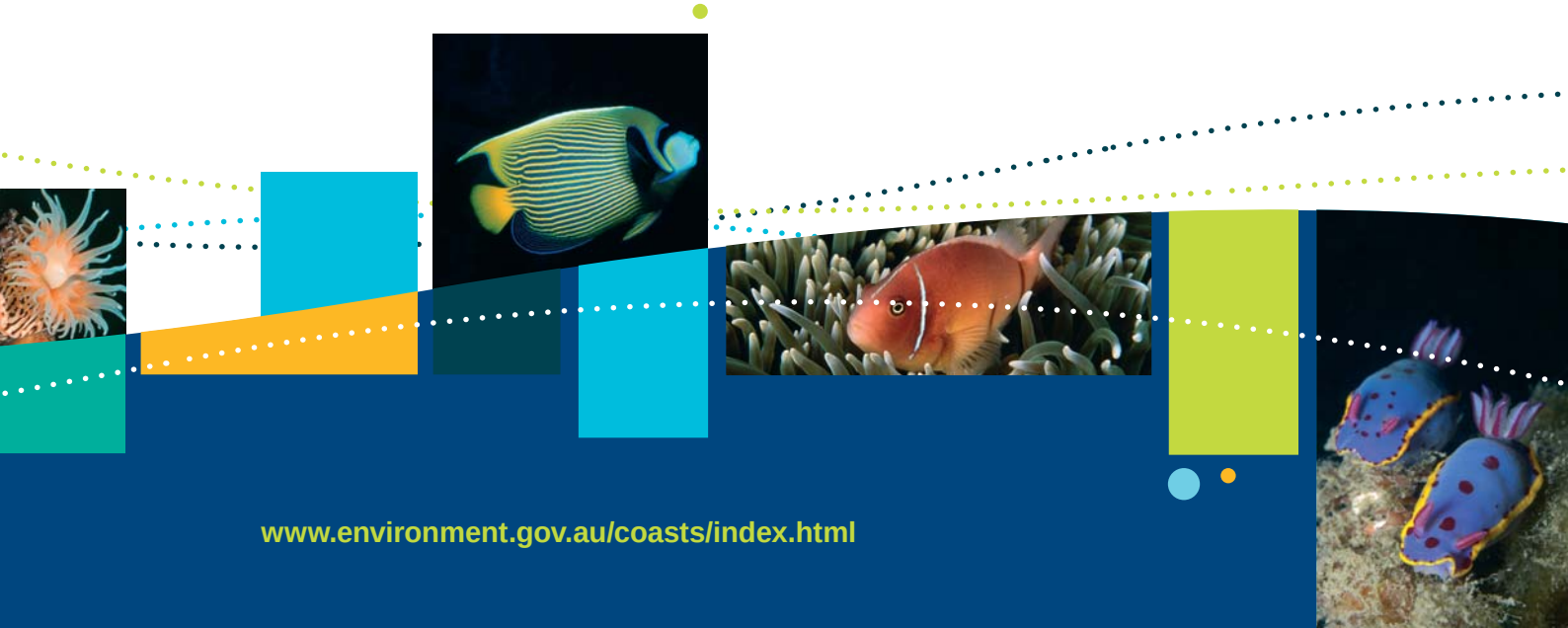
An Australian Government Steering Group has been established to guide the development of this displaced activities policy. The Steering Group is supported by a Stakeholder Advisory Group which consists of representatives from indigenous communities and key sectors including commercial, charter and recreational fishing, petroleum, conservation, ports and shipping.

Recommendations on the displaced activities policy are intended to be available for Ministerial consideration by December 2009.

How can I get involved in the marine bioregional planning process?

The Australian Government welcomes any contribution that will assist in developing Marine Bioregional Plans. While information from marine resource users, researchers and managers will be identified throughout the process, the Marine Bioregional Planning Program also involves key steps during which the public is invited to provide input.

Consultation with stakeholders will focus on issues and activities relevant to each marine region and meetings will be held to provide updates on progress and to discuss and seek

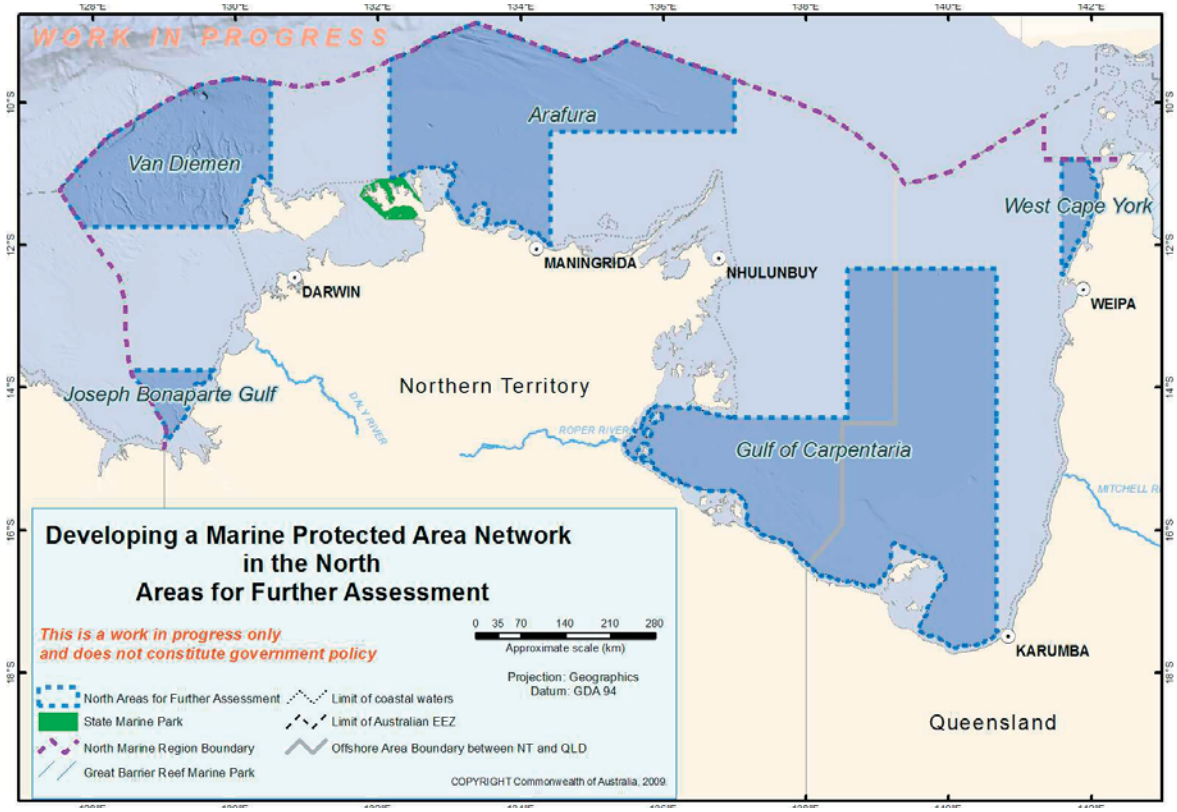


feedback on planning approaches. In addition to these meetings, targeted consultation will be undertaken on specific aspects of the planning process.

A formal public consultation period of at least 60 days will occur on the release of each draft Marine Bioregional Plan. During this public consultation period stakeholders will be contacted and public meetings will be held where needed to facilitate and discuss feedback on the draft Plan. Views expressed by stakeholders will be considered before the final Marine Bioregional Plan is completed for each Region.

After the Minister has adopted the final Marine Bioregional Plans, the proposed network of new marine reserves will be declared through a separate process. This declaration process involves additional public consultation and another formal 60 day feedback period.

Map 2: Areas for Further Assessment in the North Marine Region



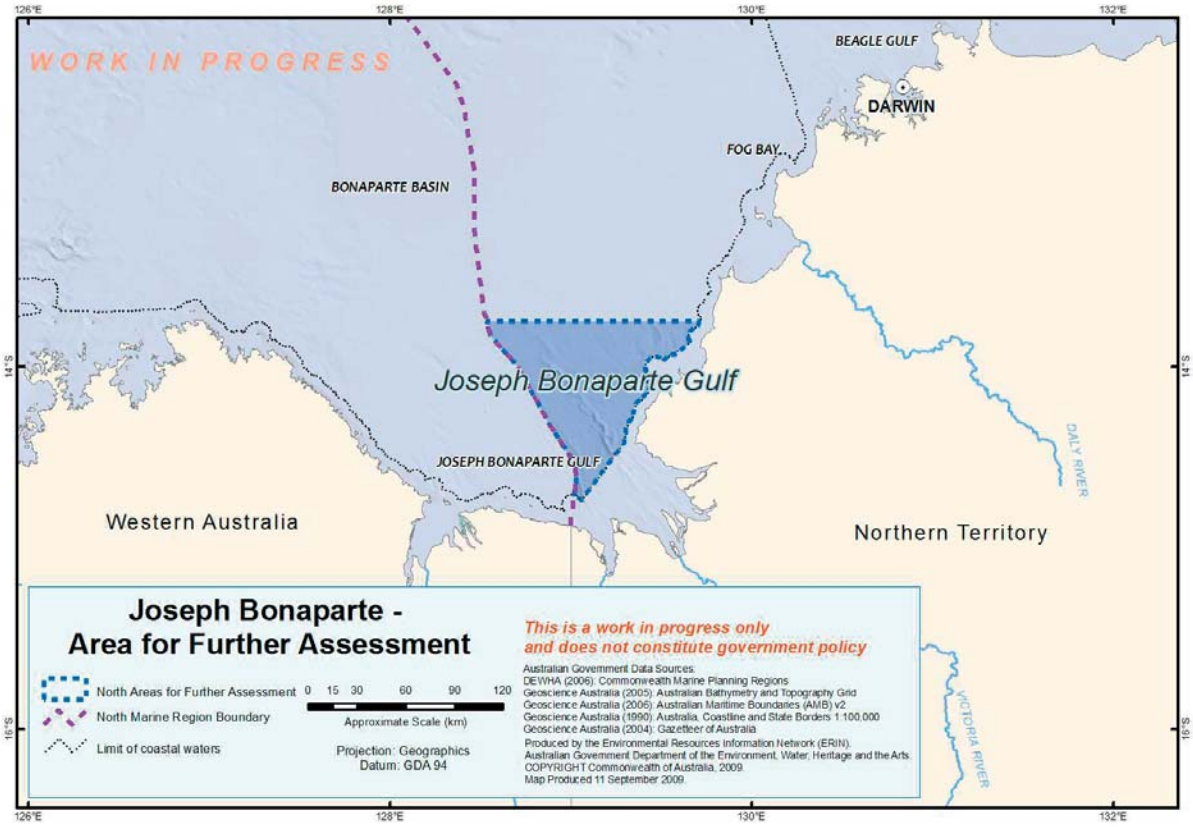
Requests for additional information, or any questions and comments may be directed to: mbp.north@environment.gov.au

Or mail to:

The Director
Tropical North Marine Conservation
Marine Division
Department of the Environment, Water, Heritage and the Arts
GPO Box 787
Canberra 2601 ACT

Description of each Area for Further Assessment in the North Marine Region

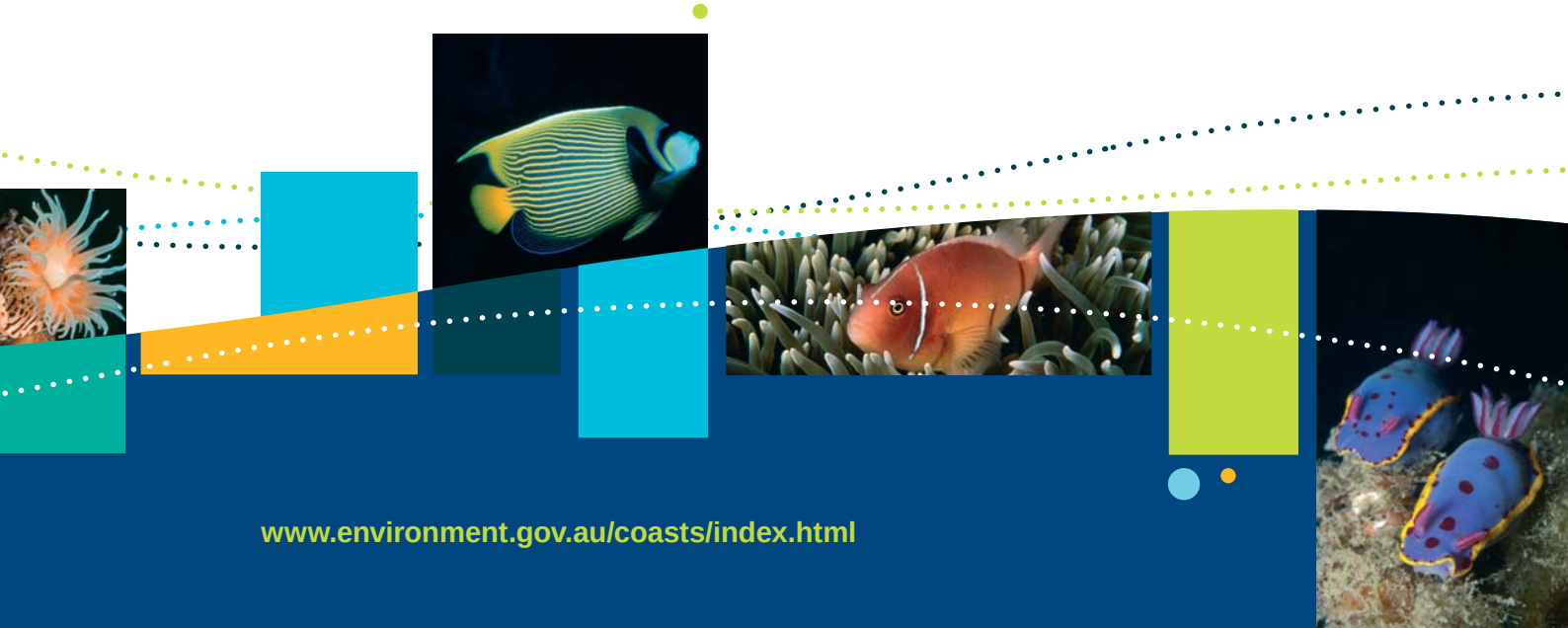
1. JOSEPH BONAPARTE GULF Area for Further Assessment



The Joseph Bonaparte Gulf Area for Further Assessment (AFA) is an extension to the North-west Marine Region's 'Bonaparte' AFA. It covers 6330 km^2 of the Joseph Bonaparte Gulf extending from the Western Australia/Northern Territory boundary to waters north of Wadeye, and includes ecosystems from the Northwest Shelf Transition provincial bioregion.

The AFA covers part of the Bonaparte Sedimentary Basin and includes the waters of the Cambridge-Bonaparte, Bonaparte Gulf and Anson Beagle meso-scale bioregions, with water depths ranging from less than 20 metres to over 40 metres.

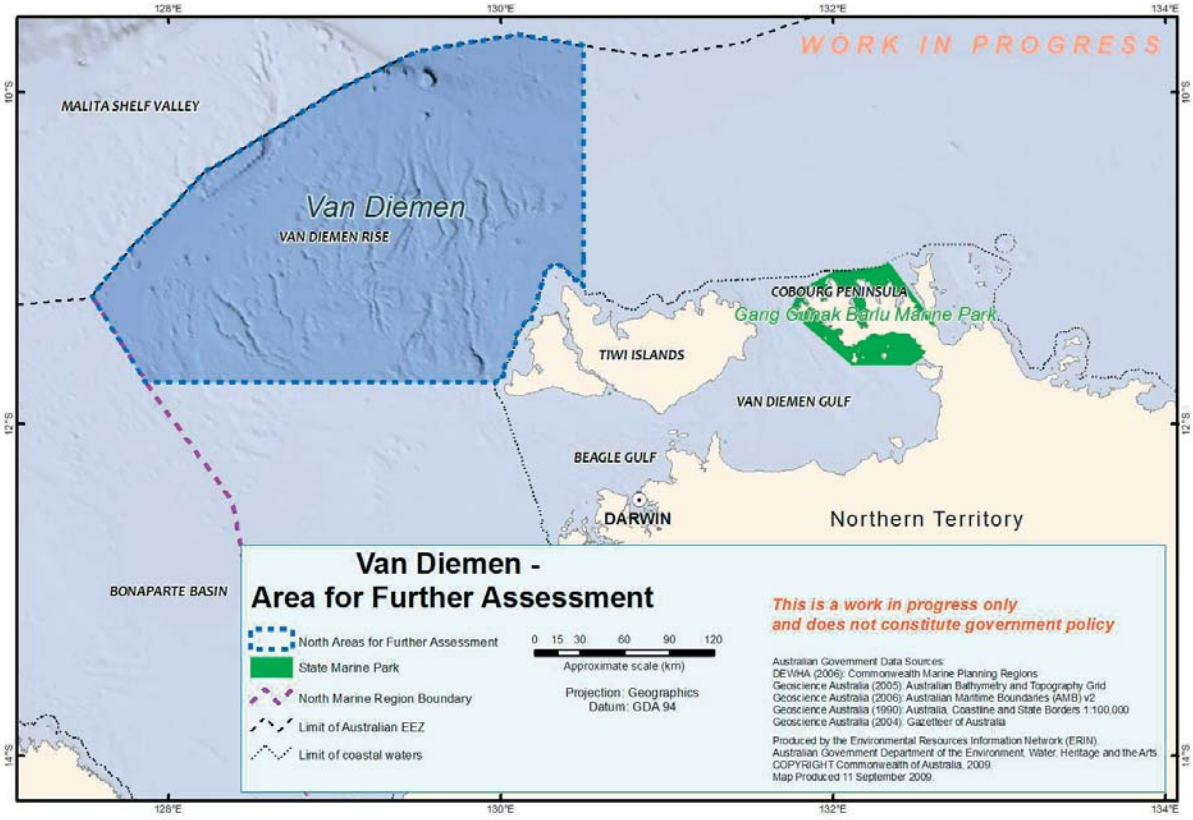
Identification of a marine reserve in this AFA will be influenced by the marine reserve identification process in the North-west Marine Region and may result in a proposed marine reserve that straddles the boundary between the two Marine Regions.

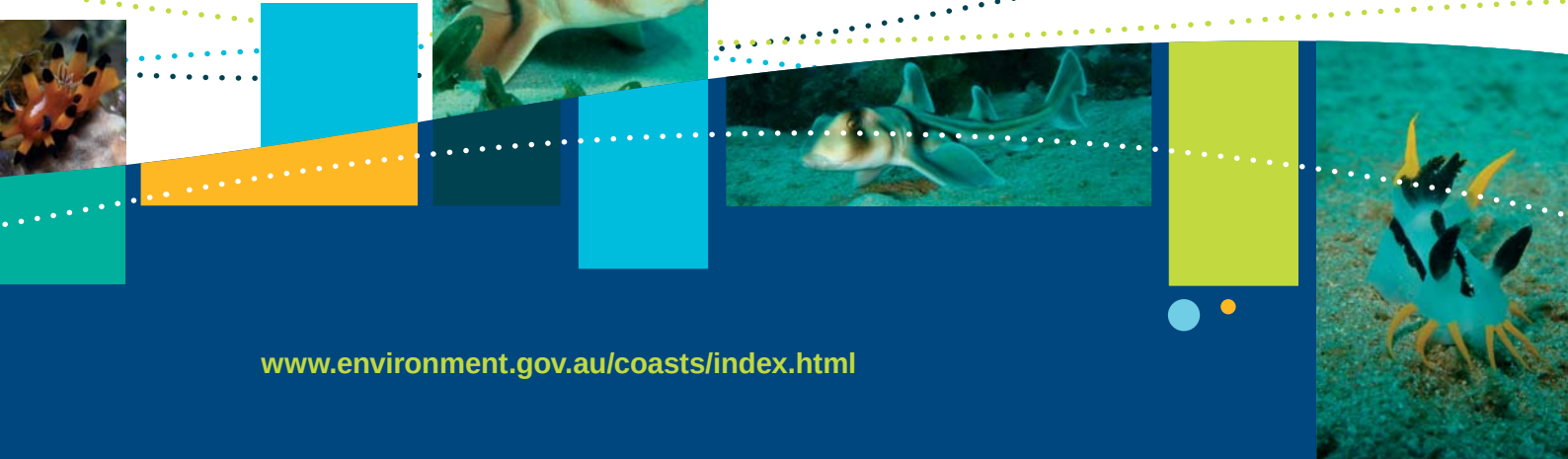


Conservation values of the Joseph Bonaparte Gulf Area for Further Assessment:

- representation of the Northwest Shelf Transition provincial bioregion,
- representation of the Cambridge-Bonaparte, Bonaparte and Anson Beagle meso-scale bioregions. This is the only AFA that covers the Anson Beagle meso-scale bioregion,
- representation of seafloor features (deep/hole/valley, reefs and banks, and shoals). This is the only AFA that covers banks and shoals found in comparatively shallow waters,
- representation of areas adjacent to nationally and internationally significant nesting sites for flatback turtles, as well as significant waterbird breeding colonies and migratory shorebird roosts, and
- representation of areas that enable maintenance of ecological connectivity between coastal waters (especially mangrove habitats) and deeper ocean environments.

2. VAN DIEMEN Area for Further Assessment





The Van Diemen Area for Further Assessment is an extension to the North-west Marine Region's 'Bonaparte' AFA. It covers an area extending from the Western Australia/ Northern Territory boundary to the Tiwi Islands, and includes ecosystems from the Northwest Shelf Transition provincial bioregion.

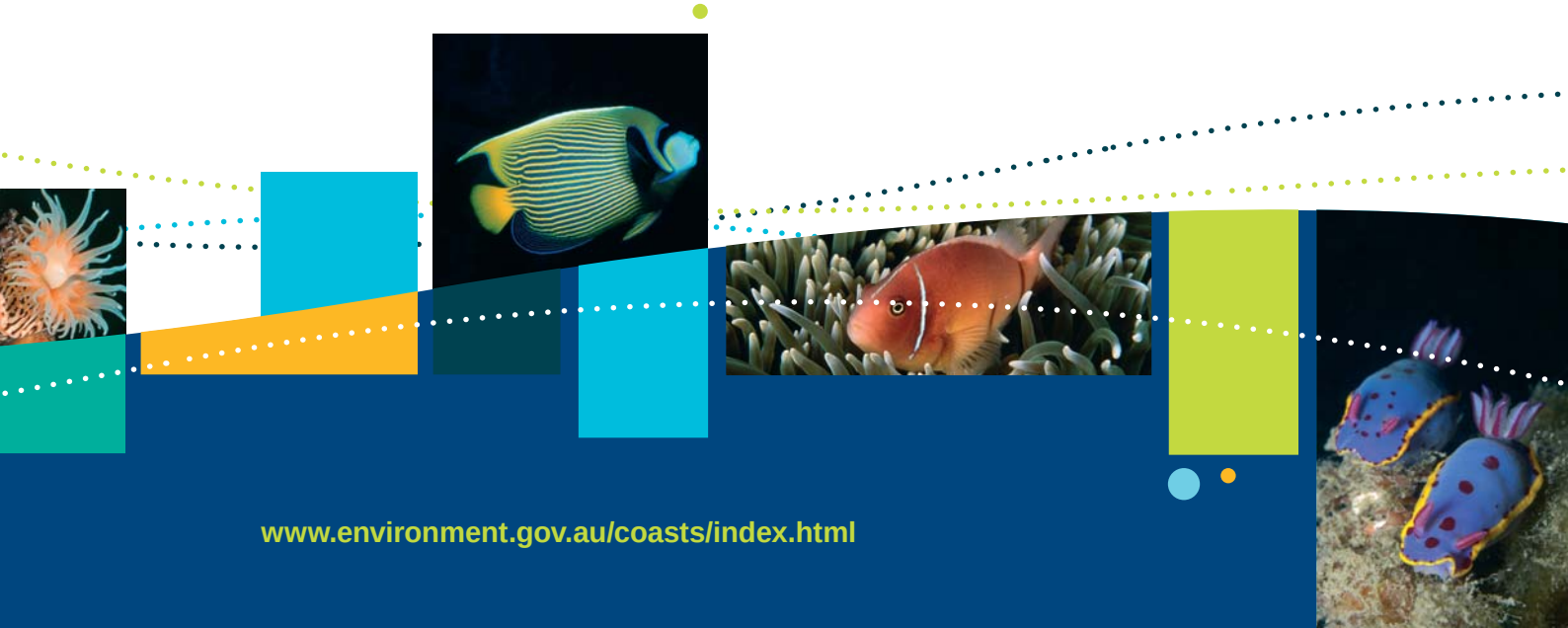
The AFA covers part of the Bonaparte Sedimentary Basin and includes the waters of the Oceanic Shoals, Bonaparte Gulf and Tiwi meso-scale bioregions with depths ranging from less than 20 metres to more than 300 metres.

Identification of a marine reserve in this AFA will be influenced by the marine reserve identification process in the North-west Marine Region and may result in a proposed marine reserve that straddles the boundary between the two marine regions.

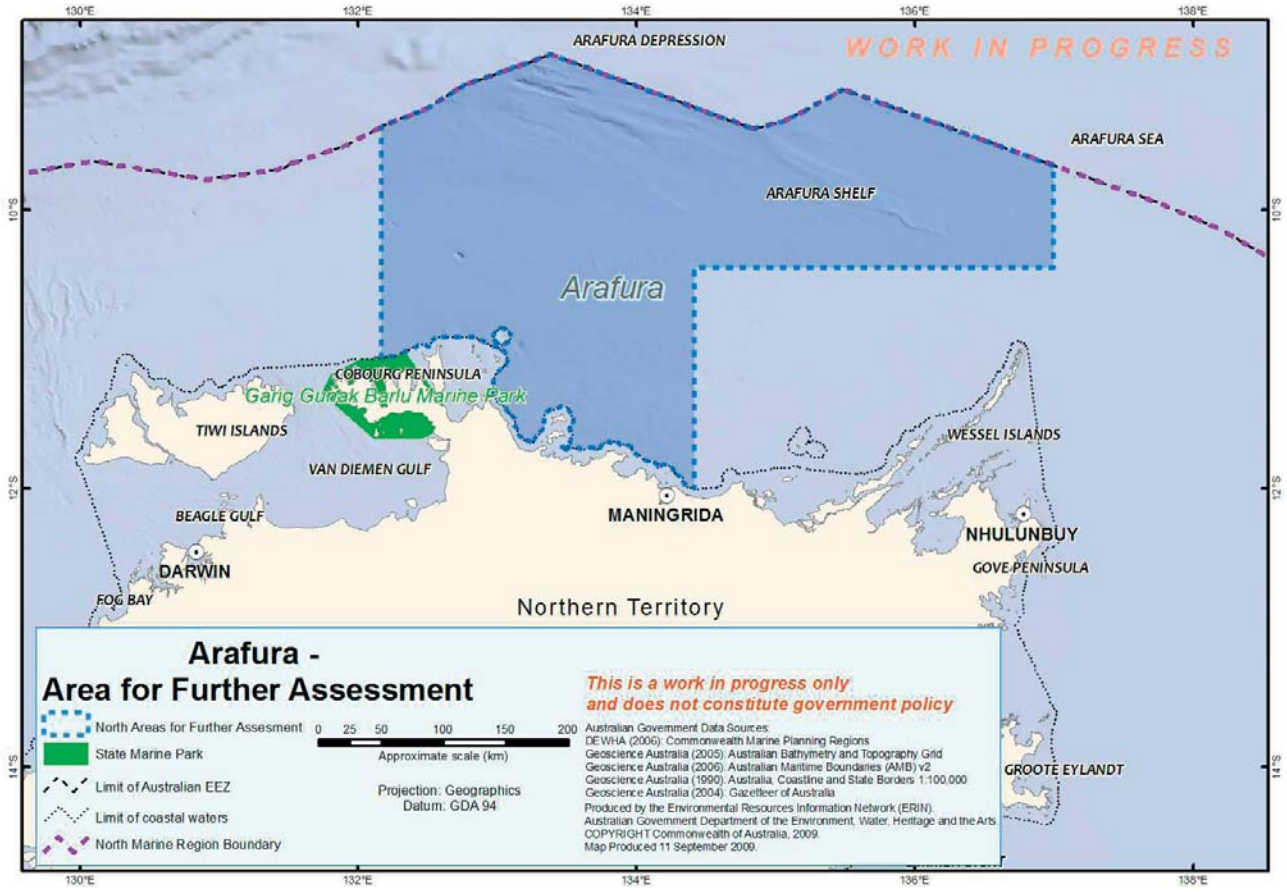
The northern boundaries of this AFA lies along the seaward limits of Australia's Exclusive Economic Zone, and as a consequence the area is vulnerable to a number of regional maritime threats such as illegal fishing, quarantine and marine pest issues, and marine debris.

Conservation values of the Van Diemen Area for Further Assessment:

- representation of the Northwest Shelf Transition and Timor Transition provincial bioregions,
- representation of the Oceanic Shoals, Bonaparte and Tiwi meso-scale bioregions,
- protection of part of the Bonaparte Basin which is identified as a Key Ecological Feature,
- representation of the pinnacles of the Bonaparte Basin which are identified as a Key Ecological Feature due to their role in supporting feeding aggregations (demersal fish),
- representation of the shelf break and slope of the Arafura Shelf, identified as a Key Ecological Feature and unique seafloor feature, that supports enhanced biological productivity including feeding aggregations of predatory fish,
- representation of carbonate terrace and bank system of the Van Diemen Rise, and associated shelf channels and valleys, which are identified as a Key Ecological Feature that supports high biological productivity including important foraging habitats for olive ridley turtles,
- representation of seafloor features (basin, pinnacles, reef, banks and shoals, deeps/ holes/valleys, terrace, slope and tidal-sandwave/sand-bank) and associated ecological processes and biodiversity, and
- representation of areas that are adjacent to critical nesting sites for olive ridley, flatback and green turtles, internationally significant nesting sites for seabirds, and nationally significant aggregations of migratory shorebirds.



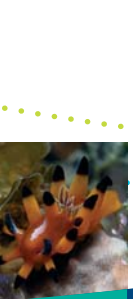
3. ARAFURA Area for Further Assessment



The Arafura Area for Further Assessment includes ecosystems from the Northern Shelf Province bioregion and covers part of the Money Shoal and Arafura Sedimentary Basin. It also includes waters of the Arafura, Coburg and Arnhem Wessel meso-scale bioregions with water depths ranging from less than 20 metres to over 150 metres. The AFA is adjacent to the only existing marine reserve in the North Marine Region, the Northern Territory Garig Gunak Barlu National Park.

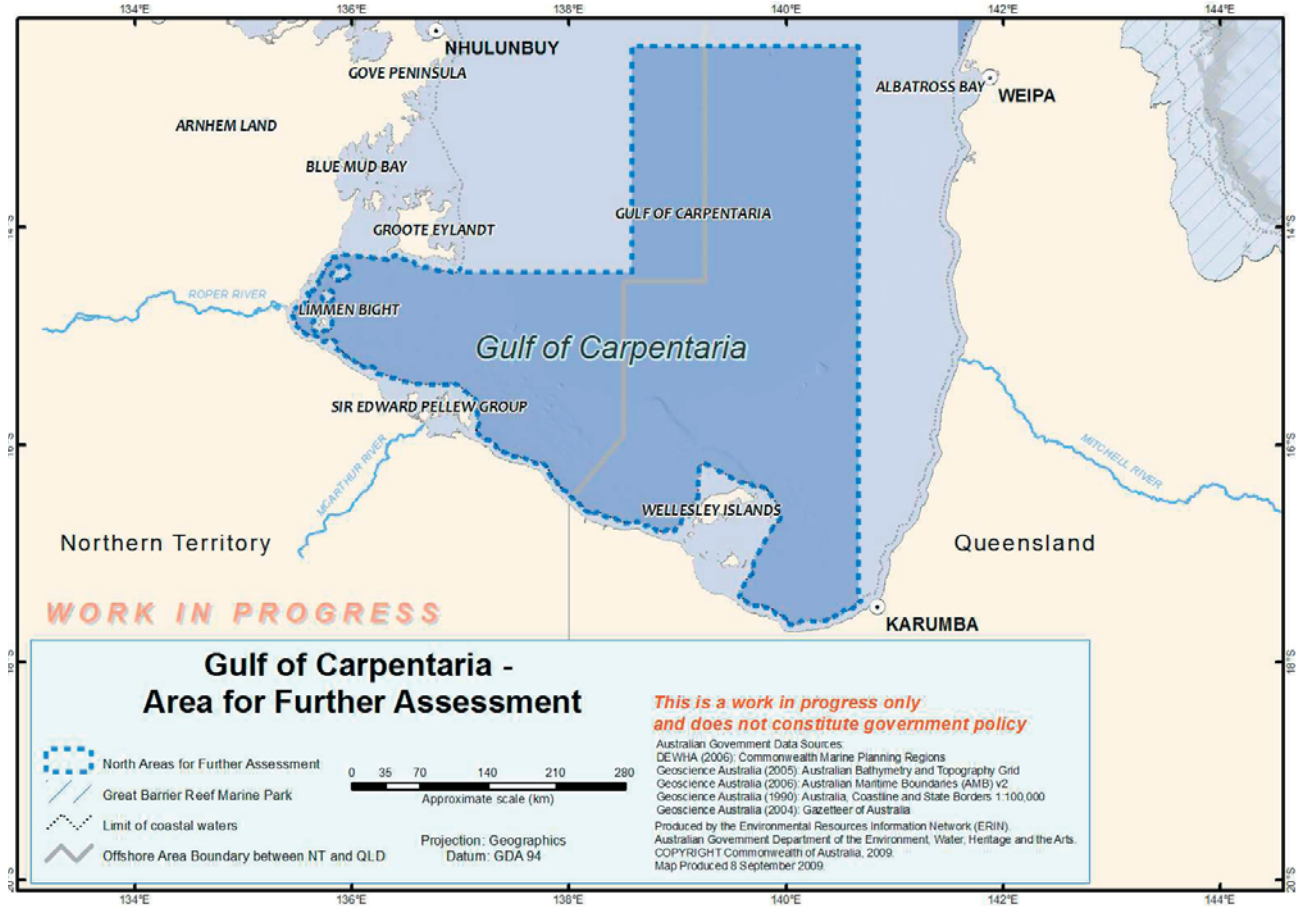
Conservation values of the Arafura Area for Further Assessment:

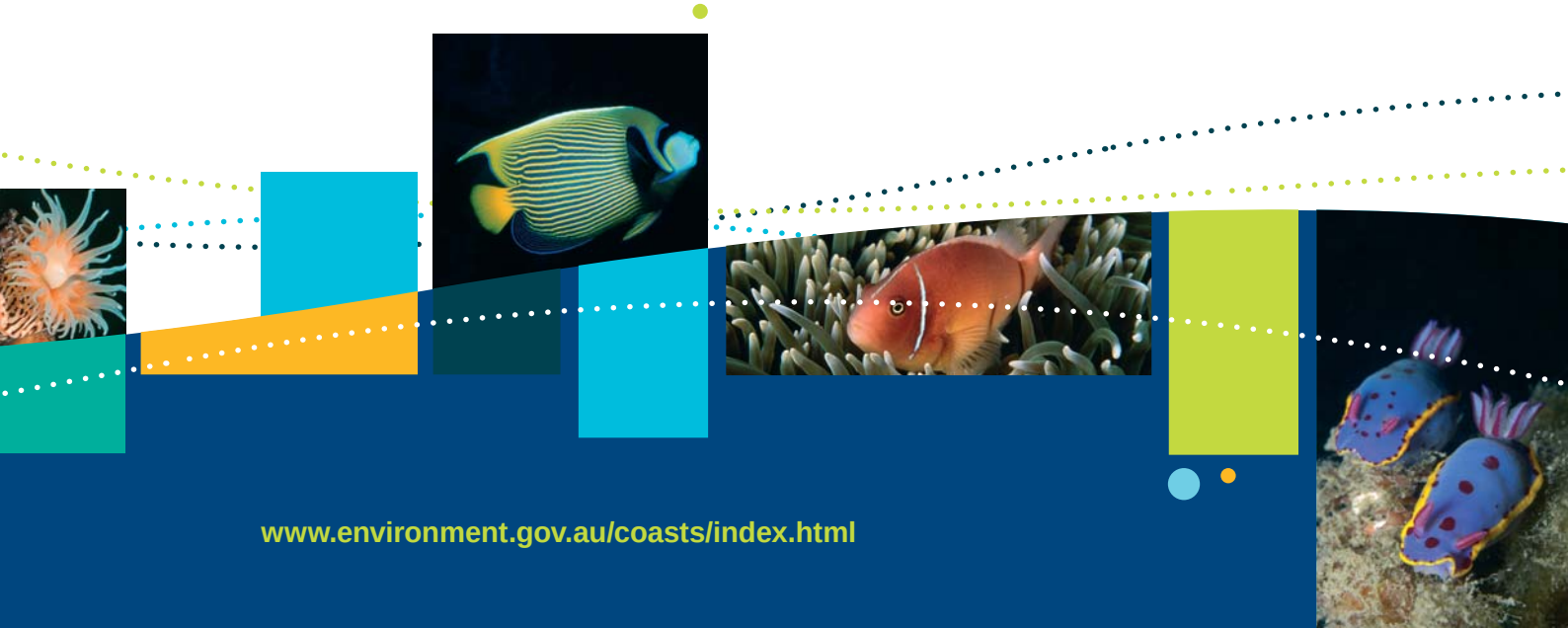
- representation of the Northern Shelf Province and Timor Transition provincial bioregions,
- representation of the Arafura, Coburg and Arnhem Wessel meso-scale bioregions. This is the only proposed AFA to cover these meso-scale bioregions,




- representation of unique seafloor features of the Region including sill, apron/fan and the canyons of the Arafura depression which are identified as a Key Ecological Feature of the Region and important features for biodiversity and endemism, and
- representation of areas that are adjacent to nationally and internationally significant olive ridley, flatback and leatherback turtle nesting sites, important area for aggregations of dugong, Australian snubfin dolphin and Indo-Pacific humpback dolphins.

4. GULF OF CARPENTARIA Area for Further Assessment





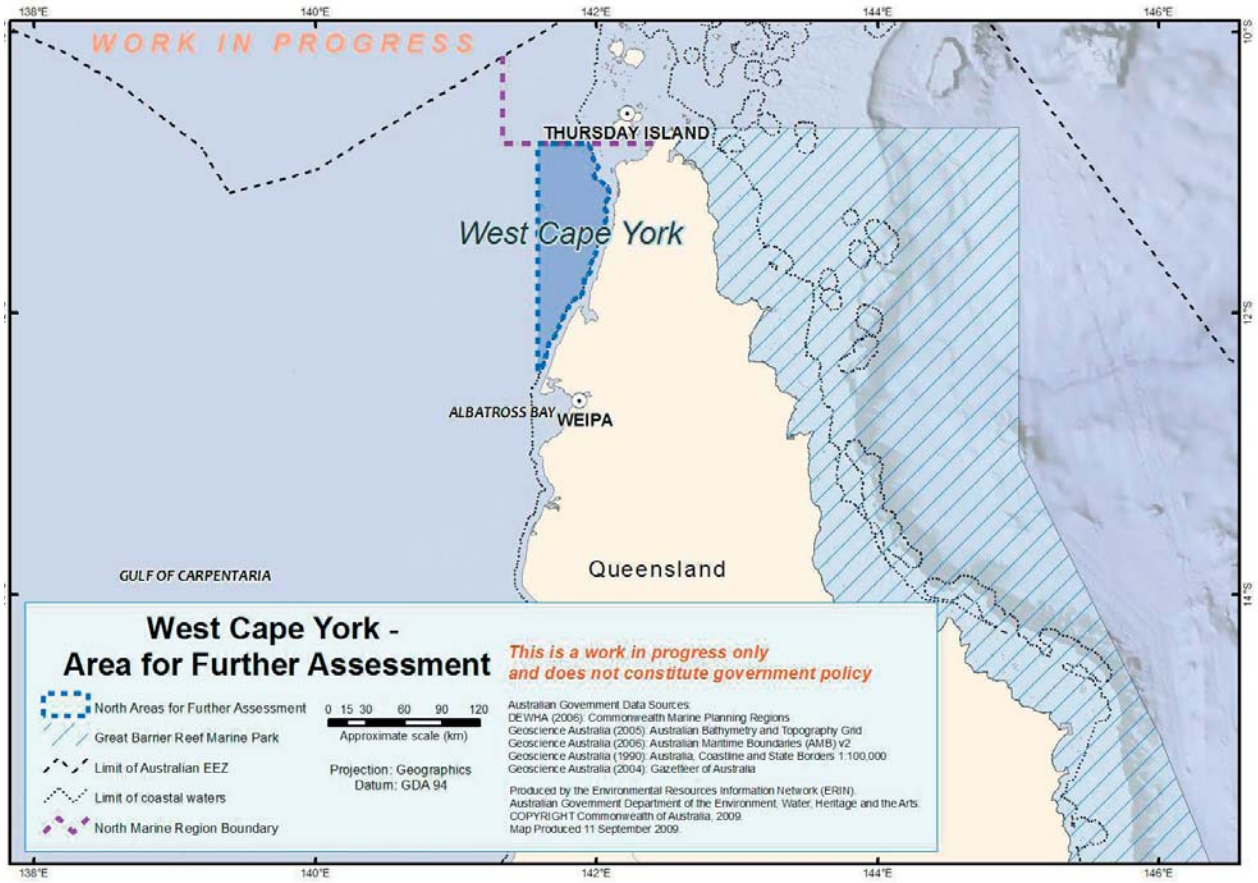
The Gulf of Carpentaria Area for Further Assessment includes ecosystems from the Northern Shelf Province bioregion and includes waters of the Carpentaria, Groote, Pellew, Wellesley, and Karumba-Nassau meso-scale bioregions. Water depths range from less than 20 metres to 80 metres.

Conservation values of the Gulf of Carpentaria Area for Further Assessment:

- representation of the Northern Shelf Province provincial bioregion,
- representation of the Carpentaria, Groote, Pellew, Wellesley and Karumba-Nassau meso-scale bioregions. This is the only proposed AFA to cover these meso-scale bioregions,
- representation of the Gulf of Carpentaria basin, identified as a Key Ecological Feature that plays an important ecological role as well as supporting dugongs, marine turtles, dolphins and a large number of birds which migrate through the area,
- representation of the plateaux, saddle and canyon of northwest of the Wellesley Islands, identified as a Key Ecological Feature as well as a unique seafloor feature that supports submerged living corals as well as nutrient mixing that is 'upwelling like' which enhance productivity, attracting feeding aggregations of pelagic fish and birds,
- representation of submerged coral reefs of the Gulf of Carpentaria identified as a Key Ecological Feature and support enhanced biological biodiversity which attracts aggregations of marine life,
- representation of Commonwealth waters adjacent to Maria Island, an internationally significant green and flatback turtle nesting site,
- representation of areas adjacent to Wellesley Islands where significant numbers of dugongs aggregate, and
- representation of the Limmen Bight which supports aggregations of Australian snubfin dolphin and Indo-Pacific humpbacks and is one of the most important areas for aggregations of dugong in Australia.



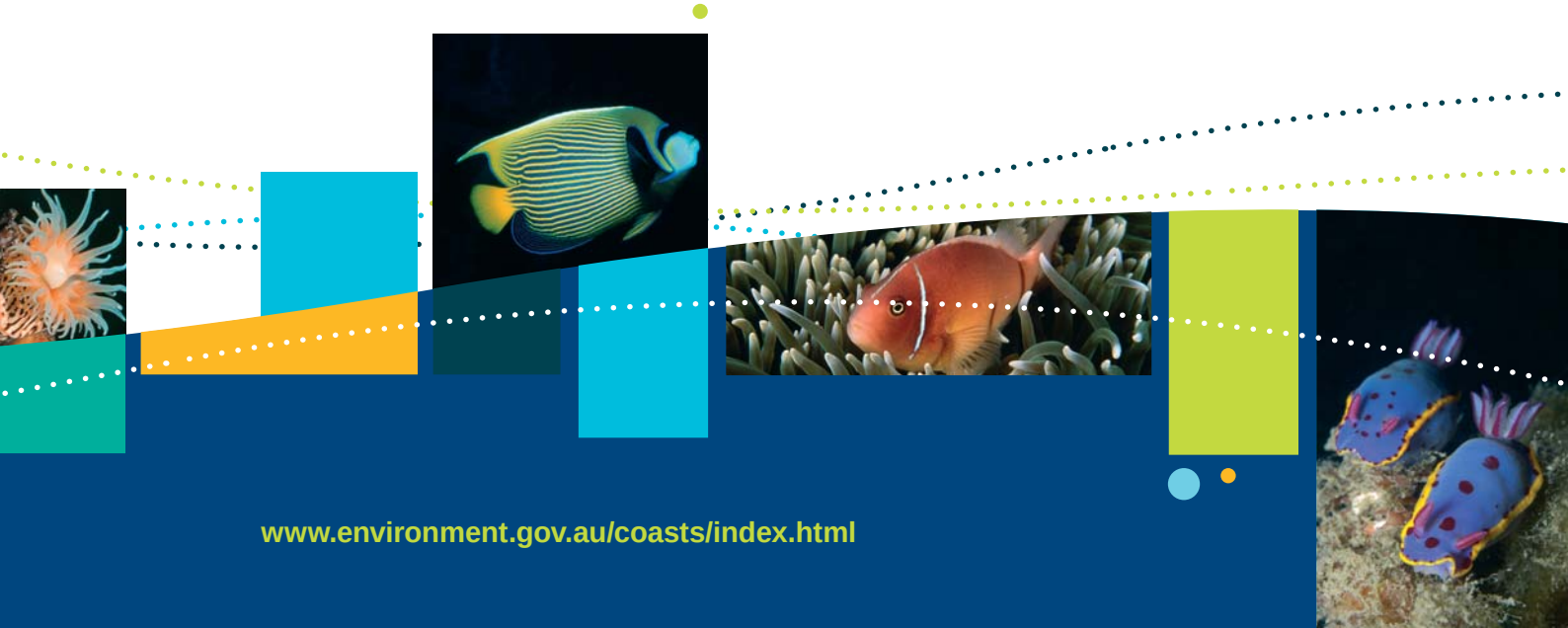

5. WEST CAPE YORK Area for Further Assessment



The West Cape York Area for Further Assessment includes ecosystems from the Northern Shelf Province and Northeast Shelf Transition bioregion and includes waters of the West Cape York and Torres Strait meso-scale bioregions. Water depths range from less than 20 metres to 40 metres.

Conservation values of the West Cape York Area for Further Assessment:

- representation of the Northern Shelf Province and Northeast Shelf Transition provincial bioregions,
- representation of the West Cape York and Torres Strait meso-scale bioregions. This is the only proposed AFA to include these meso-scale bioregions,



- representation of key seafloor features including tidal-sandwaves/sand-banks and their associated biodiversity,
- representation of areas adjacent to Crab Island which supports the largest aggregation of nesting flatback turtles in northern Australia and nationally significant hawksbill turtle nesting sites, and
- representation of areas adjacent to coastal estuaries which are important breeding and nesting areas for saltwater crocodiles.

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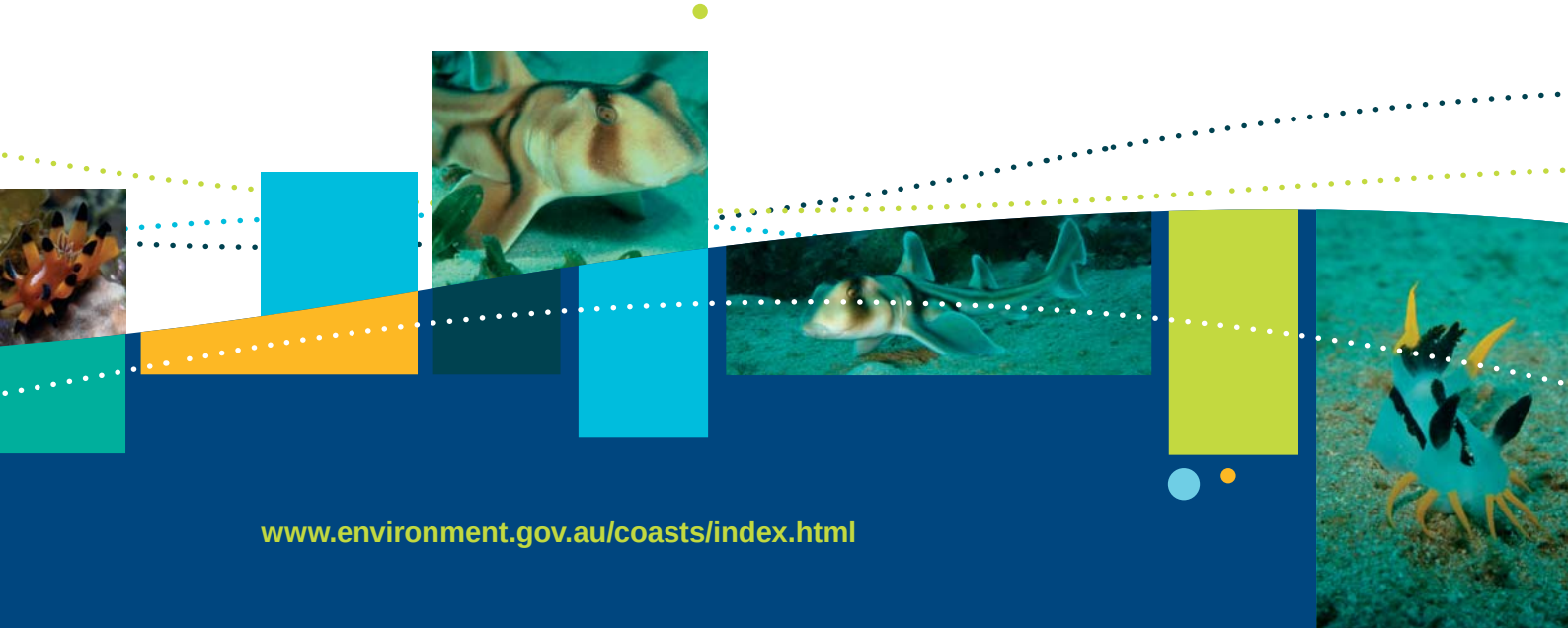

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