Summary of design principles guiding Western Australia's **marine park network**

Rowley Shoals Marine Park. *Photo – Suzanne Long/DBCA*

GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

Multiple-use marine parks in Western Australia are designed using principles based on national and international criteria, accepted conservation planning principles and the latest knowledge from scientific research. They need to meet the key ecological, cultural and sustainable use objectives of marine parks.

Snubfin dolphin, Yawuru Marine Park. *Photo – Alex Brown*

The design principles take WA's national and international commitments into account, as well as its obligations under the *Conservation and Land Management Act 1984* (CALM Act).

There are four foundations of marine park design that govern the process:

- a **bioregional framework** – broad biogeographical areas provide the spatial scale and context in which the design principles are applied;
- **partnerships with Traditional Owners** – where possible, formal joint management partnerships are developed to design and manage marine parks;
- **community engagement** – involving key stakeholders and the community is critical to the marine park planning process; and
- a **whole of government approach** – ensuring government agencies work together to achieve marine park outcomes.

Three **broad objectives** guide the development of marine park design (including zoning) with a set of design principles (see table on pages 6–7) and selection criteria for each.

For more detailed information on the design principles and the methodology of how they are applied see *Design principles guiding Western Australia's marine park network*.

Above left Recording turtle data. *Photo – Michael Hourn/DBCA*
Left Marmion Marine Park. *Photo – DBCA*

Objective 1. Biodiversity conservation

Hermit crab. *Photo – Huw Dilley*

Biodiversity conservation principles aim to ensure that the marine environment is protected into the future. The goal is to include all the key features of marine ecosystems (marine plants, animals and communities) in highly protected marine park zones (such as sanctuary zones) in areas large enough to maintain their functional integrity and health. Highly protected zones should also include examples of special or ecologically important features, such as nursery areas or threatened species, and be designed so they are connected to each other through tides, currents and the behaviour of marine animals.

Working towards a Comprehensive Adequate and Representative Marine Reserve System

To comply with and meet Western Australia's obligations in national and international agreements and conventions, a National Representative System of Marine Protected Areas has been developed by the Commonwealth and all of the Australian States and territories. Central to this work—and similar to that underpinning the terrestrial reserve system—is the idea of a **comprehensive**, **adequate** and **representative** (CAR) reserve system.

A **comprehensive** marine conservation reserve system is one in which all major bioregions have marine reserves within them. In WA, there are 18 major bioregions (see map) and the CAR system will eventually consist of a network of marine parks and marine nature reserves around our coast.

Adequate refers to the number, size, configuration and level of protection of the reserves within a bioregion—a few very small reserves are not truly sustainable in the long term, especially in the ocean where currents and other conditions create a high degree of connectivity between different areas.

The reserves also need to be **representative** of the ecosystems within the bioregions. This means that all species of plants and animals found in Western Australian waters will be represented somewhere in our marine reserve system.

Objective 2. Aboriginal culture and heritage

King George Falls. *Photo – Michael Hourn/DBCA*

Aboriginal culture and heritage objectives aim to ensure marine park design respects Aboriginal culture and connection to Country, protects cultural values, and respects customary use of biological resources and Traditional Owner aspirations for Country. Implementing cultural heritage design principles with Aboriginal people ensures that traditional, scientific, and technical knowledge held by Traditional Owners is incorporated into marine park design.

Aboriginal marine connections, culture and heritage

Western Australia is blessed with rich Aboriginal culture and heritage from the oldest continuing living culture in the world. Traditional Owners have very strong connections to their Sea Country, and cultural obligations to care for and protect it. The State Government also has requirements and commitments to protect Aboriginal culture, heritage and traditional knowledge and to support Aboriginal customary activities, and these are enshrined in the CALM Act.

Above Water sampling. *Photo – Anna Smith/DBCA*

Significant Sea Country sites may include fish traps, middens, fishing and hunting grounds, seascape features, shell sites, breeding areas and culturally important habitats such as reefs or beaches. Intangible values may include stories and song lines, traditional knowledge and relationships with specific plants and animals, and enjoyment of Country and customary activities. Special purpose zones in marine parks can be designed to help to protect these culturally significant areas, values and cultural obligations. Zoning can also be used to manage access to sites considered to be dangerous or taboo by Traditional Owners.

Employing Traditional Owners as marine park rangers on Sea Country creates vital jobs and opportunities for Aboriginal people. Importantly, it supports two-way learning through the merging of traditional knowledge with more contemporary conservation practices. The deep understanding Traditional Owners have of plants, animals, the seasons and seascape features can greatly inform, and strengthen, scientific research and marine park management.

Objective 3. Ecologically sustainable use

Recreational fishing. *Photo – Carolyn Thomson-Dans/DBCA*

Ecologically sustainable use principles ensure that key stakeholder and community needs are met. Multiple-use marine parks are designed to provide social and economic benefits to local communities and cater for sustainable uses such as recreational and commercial fishing, pearling and aquaculture, tourism and recreation, education, research and monitoring, and protection of natural and maritime heritage values.

Why we need marine parks

Western Australia's marine areas are unique and irreplaceable and, like national parks on land, they warrant protection, so everyone can continue to appreciate and enjoy healthy marine ecosystems into the future.

When it creates a marine park the State Government dedicates funding and resources, such as boats and marine park rangers, to facilitate effective management. Marine park rangers interact with visitors and other users to ensure good behaviour and practices, participate in rescue operations for stranded wildlife and conduct many other operational tasks. They run education programs for local communities and visitors to raise awareness about the park's diverse marine life and the importance of conserving it.

Above Commercial fishing. *Photo – DPIRD*

Funding is also allocated for regular monitoring and scientific data collection in marine parks, to determine whether each park's unique marine biodiversity and its water and sediment quality remains in good condition. Scientific monitoring programs ensure we know if something is amiss.

Traditional Owners have deep cultural and spiritual connections to their sea country. Jointly managed marine parks protect Aboriginal culture and heritage and allow communities to continue practicing their traditions and maintaining their way of life.

Marine parks also confer economic benefits. They stimulate the local economy through raising the profile of marine values and increasing eco and cultural tourism opportunities as well as creating jobs, as occurred with the expansion of Ningaloo Marine Park.

Principles for designing Western Australia's **marine**

Biodiversity conservation objective

Design principles

Comprehensiveness – The full range of ecosystems, habitats and communities present within and across each bioregion should be included within a marine park network.

Adequacy – The network includes enough of each component of biodiversity (i.e. enough of each habitat type) to maintain a healthy functioning marine ecosystem.

Representativeness – Biodiversity features should be represented across their natural range, biological and genetic diversity and variability.

Precautionary principle – Lack of scientific certainty should not be used as a reason for postponing measures to protect the marine environment within a marine park network.

Ecological importance, vulnerability and resilience – Such areas are prioritised for high protection so as to sustain populations and maintaining ecosystem function.

Connectivity – Design considers how components of marine ecosystems are connected through tides, currents and the behaviour of plants and animals.

Protect and conserve Aboriginal culture and heritage objective

Design principles

Conserve culturally significant sites and areas important for culturally significant species.

Respect and provide for ongoing **connection to Country and Culture**, including **customary activities.**

Where culturally appropriate, provide **consistency with cultural laws**, lore and protocols, including cultural management arrangements.

Where culturally appropriate, **raise awareness** of Aboriginal culture and heritage values.

Respect current and future aspirations and arrangements for Sea Country, including opportunities for economic development, training and management.

Provide for ecologically sustainable use objective

Design principles

Consider the **full diversity of marine uses** and socio-economic information.

Complementarity – achieve consistency with existing terrestrial and marine protected areas, management arrangements and practices, policies and conservation agreements.

Provide for **natural and maritime heritage** values.

Provide for **education and research.**

Ensure **ease of identification**, understanding and compliance.

Main Lalang-gaddam Marine Park. *Photo – Landgate.*
Insets right, from top Flatback turtle hatchlings. *Photo – Andrea Whiting.* Customary fishing. *Photo – Chris Nutt/DBCA.* On-Country trip. *Photo – Natalie Elliot/DBCA.* West Australian nudibranch. *Photo – John Huisman.*

park network

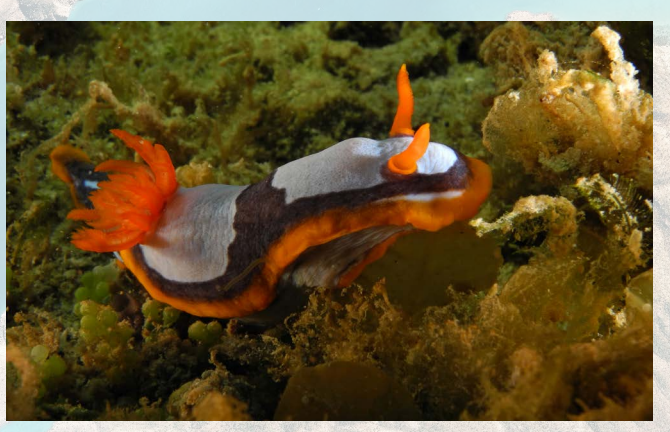
Meet WA's international and national obligations

- National Representative System of Marine Protected Areas (NRSMPA)
- Convention on Biological Diversity (CBD)
- International Union for the Conservation of Nature's (IUCN) Protected Areas Program
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

Meet the State Government's obligations under the CALM Act

Community needs and interests

- Commercial fishing
- Recreational fishing
- Tourism
- Other recreation
- Pearling and aquaculture
- Scientific research



Putting it all together - how design principles are applied

Joint management in the Lalang-gaddam Marine Park. *Photo – Michael Hourn/DBCA*

In Western Australia, marine parks are zoned using one or more of four zone types: **general use**, **special purpose**, **recreation** and **sanctuary zones** to achieve multiple use outcomes.

Traditional Owners and planners work in partnership to identify areas with specific culture and heritage values and then work together on zoning and other management options to protect significant cultural sites.

The biodiversity conservation principles and selection criteria are used to broadly identify options or general areas of interest to be considered for higher protection through zoning. In many cases there will be multiple options available which meet the biodiversity conservation criteria.

The sustainable use criteria are then used as an overlay to select areas to include in sanctuary zones (such as a research site) or aim to avoid (such as a popular fishing area). Areas not included in sanctuary zones will either be designated as special use, recreation or general use zones depending on their values and uses. The socio-economic information is therefore used as a basis for decision making. Where areas are identified as being important for both conservation and sustainable use, planners always try to minimise impacts on existing uses if possible. However, areas of particular ecological significance or those that do not occur elsewhere may be prioritised for inclusion in sanctuary zones.

A well-designed marine park network will help to provide increased resilience to future pressures and threats, maintain ecosystem health and productivity, protect cultural values and safeguard future opportunities for recreational and economic growth.

For more information on the design principles and how they are applied see *Design principles guiding Western Australia's marine park network* at dbca.wa.gov.au/marineplanning

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