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Department of Biodiversity,
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Functions of marine sanctuaries

To minimise the risk of degradation, we set anchors on sand rather than on coral and dispose of rubbish thoughtfully. To monitor the health of the marine environment, scientists and managers take measurements of the variety, size and numbers of fish, water quality and other environmental parameters. They compare the results taken in areas that are subject to human use with the results taken in similar areas that are free from human disturbance. Marine sanctuaries are areas free from human disturbance. They are benificial for scientific comparisons and help to determine the need for adjustments to human activities.

Marine sanctuaries also provide the 'insurance' component of marine management strategies by putting something aside for unforeseen circumstances.

In addition to the scientific reference and 'insurance' functions of *marine sanctuaries*, they also provide significant benefits to conservation by:

- protecting the rich variety of all marine life forms,
- · protecting the quality and structure of habitats, and
- maintaining genetic diversity.

Target fish and other species with limited home ranges tend to be larger and more abundant in *marine sanctuaries*. These protected populations result in a greater reproductive output with the potential for stock replenishment of adjacent areas. The larger the *marine sanctuary*, the greater its potential to provide a refuge and to replenish adjacent areas.

From a management point of view, marine sanctuaries also provide a mechanism to separate conflicting activities and create areas with intrinsic value for nature appreciation and study.

A design framework for marine sanctuaries

The functions and conservation benefits of marine sanctuaries depend on their size and location.

The effectiveness of marine sanctuaries is high if they are:

- representative of all habitat types,
- replicated so that all habitat types fall within one or more marine sanctuaries, and
- · large or buffered by areas with low impacts.

However, when there are just a few small *marine* sanctuaries, managers need to invest more resources in expensive strategies such as research, monitoring and surveillance if environmental health is to be maintained.

It's up to you

Because most of Western Australia's marine environment is healthy, further protection may seem unnecessary. However, marine sanctuaries are not only for repairing environmental damage, their primary role is to make sure that a healthy environment stays that way.

Supporting the establishment of marine sanctuaries is one way that you can invest in the sustainable future of our marine resources.

Marine sanctuaries are today's insurance policy for the needs of the future.

For further information about marine sanctuaries contact

Marine Conservation Branch
Department of Conservation and Land M

Department of Conservation and Land Management Ph: (08) 9432 5100

A more detailed publication on this subject (*No-take* areas in Marine Management) is also available from the above address.

Marine Sanctuaries Insurance for a sustainable future





The Western Australian marine environment is owned by all Western Australians. Unlike the land, where rights are set by titles and boundaries, the sea is not private property, but a common asset available to everyone.

Our marine environment contributes to the State's economic wellbeing through commercial fishing, pearling, shipping, tourism and petroleum production. It has cultural significance, is valued by Indigenous Australians and provides a variety of recreational opportunities. While we cherish the freedom of open access, experience elsewhere shows that increasing levels of human use can lead to conflict, depletion of resources and eventually to environmental degradation.

A range of management strategies is used to protect our marine environment. One strategy is to establish *marine* sanctuaries. Marine sanctuaries are areas set aside, free from significant human interference, for the protection of flora and fauna.



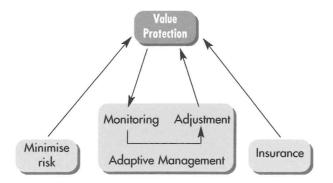


Marine sanctuaries in Western Australia

Legislation allows Western Australians to establish marine sanctuaries under the Conservation and Land Management Act. Marine sanctuaries have been established in Ningaloo, Shark Bay and Marmion marine parks and in the Hamelin Pool Marine Nature Reserve. More marine sanctuaries are planned along the Western Australian coast to establish a statewide system of marine conservation reserves.

Managing for sustainable use

We protect the things we value. For example, to minimise risk to our car, we drive carefully, service it regularly and keep it under lock and key. We also monitor the fuel, oil, water and tyre pressure and make adjustments when required. In addition, we take out insurance for unforeseen circumstances such as theft or accidents.



We adopt the same approach to protect everything else that we value. The marine environment is valued by many Western Australians. To protect it, we need to develop management strategies, which minimise the risk of degradation, monitor key environmental indicators, adjust human activities and provide an appropriate level of 'insurance'.



Benefits of marine sanctuaries

Marine sanctuaries:

- protect biodiversity and ecological integrity,
- provide refuges that protect endangered, vulnerable or rare species and communities from over-exploitation,
- provide exploited areas with a source of larvae, spores and eggs,
- provide scientific control sites that form a basis for comparison, to examine the impacts of human activities in other areas,
- provide monitoring sites that allow scientists to investigate natural levels of change in undisturbed ecosystems,
- manage for unpredictable cumulative impacts that may result from multiple-use of poorly understood environments,
- provide 'insurance' against population decline of vulnerable species by protecting core populations, spawning sites and nursery areas,
- create new, or enhance existing human activities, e.g. nonextractive, low impact activities such as passive recreation, scientific research and tourism, and
- separate incompatible activities and, in some cases reduce conflicts between users.