Australian Coral Reef Society Inc.

A society promoting scientific study of Australian Coral Reefs

Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

Plan Coordinator
Ningaloo Marine Park Management Plan
CALM Marine Conservation Branch
47 Henry St., Fremantle, 6160 WA

ningaloo@calm.wa.gov.au

October 20, 2004

Comments on the Ningaloo Marine Park Draft Management Plan and Indicative Management Plans for the Extension to the Existing Park and the Muiron Islands Marine Management Plan

The Australian Coral Reef Society congratulates the Department of Conservation and Land Management for developing this plan for Australia's premier coastal coral reef. As professional coral reef researchers employed by a wide range of State and Commonwealth coral reef research and management organisations, we welcome this opportunity to provide comments on this Plan.

The Australian Coral Reef Society (ACRS) is the oldest coral reef society in the world and was founded as the Great Barrier Reef Committee in 1922. The Society has over 250 Australian and overseas members and represents the coral reef research community in Australia. The Society's members are primarily employed through government research and management agencies, as well as private organisations. We hold annual scientific meetings and support postgraduate research on Australia's coral reefs. A central tenant of the Society is to support the sustainable management of coral reefs and so the comments we provide here are drawn from this perspective.

The Society has been actively involved in commenting on marine park management plans, and has historically been extremely active in commenting on the management of the Great Barrier Reef Marine Park. In the past we have also provided comments on West Australian coral reef ecosystems.

The first page of the Draft Management Plan recommends that submissions address the plan in two parts, 1) comments on proposed management and 2) comments on proposed zoning. We have followed this strategy.

President: Prof Michael Kingsford; (07) 4781 4345, Fax: (07) 4781 5511; Email: Michael.Kingsford@jcu.edu.au
Hon Secretary: Dr Anke Klueter; Tel: (07) 4753 4362; Fax: (07) 4772 5852; Email: a.klueter@aims.gov.au
Hon Treasurer: Ms Maria Gomez; Tel. (07) 3365 1475; Fax: (07) 3365 4755; Email: klegomez@uq.edu.au

Australian Coral Reef Society Inc.

A society promoting scientific study of Australian Coral Reefs

Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

Management of Ecological and Social Values

7.1.2. & 7.1.3. These sections refer frequently to the role of other government bodies with regard to sediment and water quality target setting (EPA, DPI) and regulation (DoE, DoIR, DPI). While CALM is not charged with monitoring these issues, we hope that CALM will be involved in discussions as to what can be monitored given limited funding. However CALM should give high priority to understanding the circulation and hydrodynamics in and around Ningaloo. In these sections there are some unsupported statements provided including statements such as quality being high. While the WA coastline is dry, land degradation from intense grazing pressure may result in sediment runoff during the occasional rain events. This aspect warrants inclusion in any management and monitoring planning. Further, the settlement of Coral Bay is characterised by significant storm runoff during rainfall events from sealed and unsealed roads that result in sediment plumes over the adjacent reef. In combination with potential pollution from coastal population centres such as Exmouth, such impacts on coral reefs in the region are of great concern to ACRS. It should also be noted that the scarcity of water in the area to adequately treat sewerage may exacerbate this situation. Similarly, water quality issues associated with concentrated commercial and recreational boating activities need to be addressed as do threats to water quality from outside the marine park. In particular, Exmouth marina poses potential risks to water quality into the future. Within Exmouth Gulf a range of issues arise associated with proposed saltmining, turbidity from prawn trawling and aquaculture activities Increasing shipping along the coast, especially from petroleum and gas industries, needs to be carefully regulated as to ensure that this supposed high water quality is maintained.

7.1.4 To date there are relatively few baseline data on coral communities in the park, and the ACRS expresses concern that despite this commercial coral collecting will be allowed in the proposed extension and the marine management area. The management of this activity (eg: permits and bag limits) is also unclear. There are threats to corals and other communities not only from those listed but potentially from sediment inputs. While accepting that natural sediments loads are low, harbour or marina developments in the area, (some of which have already been proposed) have the potential to increase sediment loads at least locally. Certainly CALM should give high priority to understanding and mitigating these threats in any approved developments. CALM could also seek information from GBRMPA which has just initiated the Reef Water

President: Prof Michael Kingsford; (07) 4781 4345, Fax: (07) 4781 5511; Email: Michael.Kingsford@jcu.edu.au
Hon Secretary: Dr Anke Klueter; Tel: (07) 4753 4362; Fax: (07) 4772 5852; Email: a.klueter@aims.gov.au
Hon Treasurer: Ms Maria Gomez; Tel. (07) 3365 1475; Fax: (07) 3365 4755; Email: klegomez@uq.edu.au

Australian Coral Reef Society Inc.
A society promoting scientific study of Australian Coral Reefs
Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

Quality Protection Plan which addresses land run off in considerable detail. In general, CALM should endeavour to implement long term monitoring of coral reef communities particularly within areas of high usage such as Bundegi, Turquoise Bay and Coral Bay. Ideally, where possible this would include aspects of water quality and coral community integrity.

7.15 This section recognizes the importance of filter feeder communities, which dominate the inter reefal areas. These areas are characteristic of these reefs driven mainly by strong currents. However the zoning of the park does nothing to protect these communities in the outer Exmouth Gulf at the northeast of the NMP. Trawling is recognized as the greatest threat, but the proposed mapping of these communities in areas where trawling occurs will not tell us about the potential impacts of trawling. Aside from direct impact, impact associated with increased turbidity within the gulf is not understood. Trawling will already have damaged these benthic filter feeding communities in addition to a range of other habitats and unfortunately, there are no back ground data to show what these areas were like before trawling. Thus the long term target of "no loss" of filter feeding community diversity in the park is ill founded and warrants refinement. Data on the undisturbed benthic community composition and characteristics should be the basis for developing appropriate management targets. To date no detailed inventory of these habitats has been undertaken. Subsequently, an alternative strategy would be to create a sanctuary in the areas threatened by trawling and declare sanctuaries in areas currently trawled, so that a comparison can be made of their recovery. This would provide data on the effectiveness of management initiatives, but would also provide data about the characteristics of 'undisturbed' habitat that could be used as management reference points.

7.1.6. CALM has recognised the need to take a biodiversity approach to marine conservation planning however intertidal reef areas would seem inadequately protected given extractive activities can still occur in many proposed and current sanctuary zones. If this is a set of communities that is important and at risk from activities such as trampling and bait gathering, then they should be adequately protected in all sanctuaries by excluding shore based fishing from all shore based sanctuaries. The risk to these communities will increase with increasing tourist activity along the coast.

Australian Coral Reef Society Inc.

A society promoting scientific study of Australian Coral Reefs

Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

7.1.7. These soft sediment communities have traditionally been ignored in marine park zoning and we welcome their inclusion. However the effects of trawling on such communities is known to be significant, and it is certain that the trawling which has occurred in the Park in Exmouth Gulf will have changed this community. The ACRS reaffirms its position that data on the characteristics of the undisturbed habitat are necessary to set meaningful management reference points and targets, especially since no detailed analysis of these communities has been undertaken to provide a benchmark. This would include a detailed mapping of habitat distribution.

7.1.8 Populations of benthic algae fluctuate naturally and a long term target of ensuring "no loss" of algae in the Park needs to be carefully considered. It is hoped that with the creation of sanctuaries, fish and sea urchin populations would more closely resemble natural levels which could lead to the maintenance of macroalgal biomass at viable ecosystem levels. It is critical to understand the dynamic interactions of algae with nutrients and grazers, and how algae in turn interact with sediments and coral recruits. This is key to understanding the structure of the ecosystem overall, and its responses to a host of potential threats. The ACRS strongly recommends that the ecology and distribution of algae be given a higher priority and be upgraded to a key management strategy. This would help understand the importance of Ningaloo Marine Park in Preserving a unique host of algal flora composed of temperate, and tropical biogeographical provinces.

7.1.9.We strongly support the recognition here of the value of the mangrove communities which are an integral part of these inshore coastal communities. While one of the single largest extant stands of mangroves in the NW of Australia occurs in Exmouth Gulf they are not included in the Park. The ACRS believes these mangroves play an important role in the Park and would strongly support their long term conservation. Subsequently, the Society would be totally opposed to their removal for further salt extraction sites or other development. While molluscs are important, many other groups of invertebrates especially crustaceans and polychaetes are equally important in the mangroves and associated mudflats. Additionally they provide nursery habitat for prawns and juvenile fish. Again, the lack of baseline data for the area make it very difficult to set management targets, or to determine whether the diversity and abundance of this fauna is being maintained at appropriate

Australian Coral Reef Society Inc.
A society promoting scientific study of Australian Coral Reefs
Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

levels. ACRS recommends baseline data collection on species abundance and distribution before management decisions regarding their future are made.

7.1.10 and 7.1.11

Trophic linkages to local marine food webs in these communities should be better understood as a part of managing potential flow-on impacts from marine systems to terrestrial systems. It is vital that better management of these coastal communities is achieved, and that activities such as grazing be managed or reduced so that critical and sensitive coastal communities, and their ecosystem services, are allowed to regenerate. Camping and 4WD access needs to be controlled. The statement on P.42 suggests that this area is subjected to low levels of usage which appears to contradict comments made in the section of 7.1.10. Certainly the level of human usage is only going to increase along the coast and it would be preferable to develop proactive management plans for these seabirds and migratory waders, many of which are protected under International Agreements. A statement is made that bird populations are probably stable, however there are no actual data to support this statement. The importance of Ningaloo Marine Park beaches to species of migratory and resident seabirds needs to be defined in a seasonal and interannual context.

7.1.12. Considering the importance given in the Plan to recreational and commercial fishing, this section needs to be expanded to provide more details and should clearly state what are the management objectives. The ACRS emphasises that these should clearly be stated. For example, what constitutes an acceptable impact? and how will this be evaluated, across the reserve or only in sanctuary zones? We suggest that a clear set of objectives are needed.

1. Within sanctuaries there is an increase in abundance and or size of fished species. 2 We suggest that doubling current abundances and a 25% increase in size of these fished species would be useful targets. 3. In non sanctuary zones, the current levels of fish populations and size structure should be the target. 4. We would recommend that current bag limits etc (ie fisheries regulations) not only stringently enforced but regulations strengthened given that visitation is going to increase. Another objective would be for iconic species, that their size and abundance should increase following the declaration of the sanctuaries. These fish populations in sanctuary zones can then be used to assess how effective these sanctuaries have been, compared to fished areas. Once the sanctuary populations stabilize the ratio of fish in the two zones should remain relatively constant. We stress again the need for policing of these regulations

Australian Coral Reef Society Inc.
A society promoting scientific study of Australian Coral Reefs
Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

and ensuring that no illegal fishing occurs. This sort of data is useful to use to show the local fishers of the value of such sanctuaries – ie that the important species are more numerous and larger and – individuals will move out of the sanctuary zones.

7.1.17 We would like to see a greater emphasis on impacts of increased tourist activities on the behaviour of these animals, as these animals are not commercially hunted

Social Values

Comments here are restricted to three areas, 7.2.8, 7.2.9 and 7.2.11.

7.2.8 & 7.2.11. Management objectives and strategies are different in two sections relating to fishing- this should be rectified. As we have suggested for rec fishing, management strategies should include research on the target species as well as ways in which compliance is undertaken. This is in addition to monitoring fish populations.

One of the potential benefits of marine sanctuaries is as a scientific tool for understanding ecosystem function. While the interdependence of management and science is recognised in this section, it would be more consistent for research activities to be regulated in the same way as those of the general public. That is permits be required only for research that involves activities specifically prohibited by the particular zoning of the park, such as manipulative research, collection of specimens etc. This would mean that purely observational research would not require a permit. This would also reduce the administrative costs of assessing research permits for activities that the general public can undertake "as of right".

General comment:

ACRS recognises the vital role that environmental economics and the social science has to play in forming a sustainable management plan and long-term adaptive strategy. In this context we would like to encourage the use of environmental economic and social assessment tools to ensure that the anthropogenic aspects critical to the sustainable long-term management of the area are effectively encompassed by any plan or strategy and that such plans have the capacity to be adaptively refined as environmental and social conditions change into the future.

Australian Coral Reef Society Inc.

A society promoting scientific study of Australian Coral Reefs

Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

Re-Zoning and extensions of the Park

We strongly support the concept of a multi –use park as it brings the various management jurisdictions under a single authority and allows for enjoyment and use of the resource. While this coastal area is of world significance, its proximity to the coast and the relative ease of access to it require strong management to minimise risks to this unique area. We certainly support the extension of the NMP to include areas of coastal fringing reef to Red Bluff and the Muiron Islands as this should facilitate the continuity of the outstanding values of this entire area.

General Comments

Within this expanded area overall there are commendable changes to the zoning (e.g expansion of sanctuary zones to 28% of total, inclusion of areas outside the lagoon as sanctuaries). The status of sanctuary zones as complete no-take zones is important to their ability to function in the way intended and is an important reason for our positive overall assessment of this proposal. Nevertheless there are two key aspects of the proposed zoning of the park that require comment since the ACRS believes that they would bring the NMP closer to achieving the goals of Comprehensiveness, Adequacy and Representativeness.

As line fishing is permitted along nearshore areas there is under-representation of this transitional biotope in protected areas and as pressure on these intertidal platforms will only increase, we need to have a better representation of this habitat in sanctuary zones.

Another omission is the lack of sanctuaries in soft-sediment areas of the NMP. These low energy depositional environments are represented only in the extreme northeast of the NMP, in outer Exmouth Gulf, where they are subject to destructive fishing activities (Trawling). The areas are likely to harbour assemblages of filter feeders and soft-sediment infauna not represented elsewhere in the NMP. An appropriate proportion of this habitat should be protected as sanctuary zone (~30%).

Proposed Management of the Park

Management Context

President: Prof Michael Kingsford; (07) 4781 4345, Fax: (07) 4781 5511; Email: Michael.Kingsford@jcu.edu.au
Hon Secretary: Dr Anke Klueter; Tel: (07) 4753 4362; Fax: (07) 4772 5852; Email: a.klueter@aims.gov.au
Hon Treasurer: Ms Maria Gomez; Tel. (07) 3365 1475; Fax: (07) 3365 4755; Email: klegomez@uq.edu.au

Australian Coral Reef Society Inc.

A society promoting scientific study of Australian Coral Reefs

Address: ACRS Memberships
c/- Centre for Marine Studies
University Of Queensland
St Lucia QLD 4072
Tel: (07) 3365 4333. Fax: (07) 3365 4755
Email: acrs@jcu.edu.au

The ACRS believes that it would have been beneficial if plans to allow for consistent and complimentary zoning between State and Commonwealth waters were developed. The ACRS hopes that this will be achieved when the Commonwealth presents their plans.

One major component of the recent rezoning of the GBR was that there was a scientific basis to the zoning with a minimum of 20% of each bioregion being within a no take or sanctuary zone. In the NMP, it is unclear how the boundaries of the zoning plan were determined and what principles were used. It would have been of value to have the basis of the zoning feature more prominently in the Introduction and facilitate the "selling" of this plan to the community and to encourage stewardship.

We would be happy to discuss any aspects of this submission- my contact details are path@austmus.gov.au tel 02 9320 6243 and fax 02 9320 6042.

Yours faithfully

Dr Pat Hutchings
Acting President

President: Prof Michael Kingsford; (07) 4781 4345, Fax: (07) 4781 5511; Email: Michael.Kingsford@jcu.edu.au
Hon Secretary: Dr Anke Klueter; Tel: (07) 4753 4362; Fax: (07) 4772 5852; Email: a.klueter@aims.gov.au
Hon Treasurer: Ms Maria Gomez; Tel. (07) 3365 1475; Fax: (07) 3365 4755; Email: klegomez@uq.edu.au