



Rottnest Island
Marine Management Strategy
July 2007

ROTTNEST ISLAND MARINE MANAGEMENT STRATEGY

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CHAIRMAN'S FOREWORD

Rottnest Island has long been a favourite holiday destination for Western Australians who value the simple style of accommodation, unique environment and easy access from Perth whether by ferry, private boat or air taxi.

The Rottnest Island Authority is committed to the conservation of the marine biodiversity and delicate eco-systems of the Marine Reserve whilst providing quality recreational experiences for all.

The Rottnest Island Management Plan 2003 -2008 (RIMP) recommended the development and implementation of a marine management strategy that promotes equity of access and quality experiences for recreational users of the Marine Reserve.

The Rottnest Island Marine Management Strategy has been developed with input from a wide range of community groups. It represents a 'best fit' to meet all of the five strategic objectives of the RIMP and the sometimes divergent views of interested groups.

I would like to acknowledge the Working Group who have worked long and hard to develop this Marine Management Strategy. In particular, a great deal of consideration has been given to the zoning changes.

The Strategy was released in a draft form for public comment during the period 17 April 2006 to 15 July 2006. Comments from the hundreds of responses received have been incorporated into the final version.

The Rottnest Island Authority exists to protect and conserve the natural environment whilst providing recreational experiences for all Western Australians and other visitors.

The Rottnest Island Marine Management Strategy goes a long way towards ensuring a pristine and ecologically sustainable marine environment is maintained now and into the future.

Laurie O'Meara
Chairman

EXECUTIVE SUMMARY

The Marine Management Strategy (MMS) for Rottnest Island has been developed with the main focus of ensuring the unique marine environment of Rottnest Island is preserved and enhanced for future generations to enjoy. It has been developed with extensive consultation through a working group and community feedback.

The main components of the MMS include a new zoning plan which involves additional sanctuary zones, monitoring and research, education programs, enforcement and compliance.

The zoning plan will see the extension of two sanctuary zones at Parker Point and Kingston Reef and the creation of new sanctuary zones at Green Island, Armstrong Bay and West End. The West End is designated a demersal sanctuary zone to protect bottom-dwelling or 'demersal' fish species.

The new sanctuary zones and the demersal sanctuary zone will lead to important changes to the use of the Marine Reserve. Significant efforts have been taken to minimize the effects on recreational fishing, whether from the shore or a marine vessel.

The increase in sanctuary zones will have minimal impact on shoreline and boat-based recreational fishing as 83 percent of the shoreline remains accessible for fishing. Excised areas in the new sanctuary zones have been allocated to recognise popular shore-based fishing sites and boat-based trolling areas, targeting pelagic species at West End.

INTRODUCTION

Rottnest Island is one of the most popular recreation and holiday destinations for Western Australian families. It is also a popular destination for interstate and international visitors who enjoy fishing, swimming and boating in the Island's pristine waters. Approximately 500,000 people visit Rottnest Island every year.

The Island is located on the southwest coast of Western Australia at latitude 32°00 S and longitude 115°30 E, 18 kilometres west of Fremantle. It lies in an approximately east-west orientation, is 11 kilometres long and less than 5 kilometres wide at its widest point.

The Rottnest Island Authority (RIA) was established in 1987 as the statutory body to control and manage the Island under the *Rottnest Island Authority Act 1987*.

Control and management of the Island and its waters is vested in the Authority to:

- Provide and operate recreational and holiday facilities on the Island
- Protect the flora and fauna of the Island
- Maintain and protect the natural environment and man-made structures of the Island and to the extent that the Authority's resources allow, repair its natural environment.

Rottnest Island is an A-Class Reserve (no.16713) for the purpose of public recreation and protection of flora, fauna and heritage values under the *Land Administration Act 1997*.

A strategic plan guides the Rottnest Island Authority's operations.

ROTTNEST ISLAND STRATEGY

Our Vision

Relax Conserve Discover reflects the community's wish that the unique Rottnest Island experience be preserved for future generations of Western Australians.

Our Strategic Objectives

The Rottnest Island Authority has three strategic objectives for managing the Rottnest Island Marine Reserve:

- The relaxed, casual, shared holiday experience will continue as a 'point of outstanding difference' to other holiday destinations. A wide range of accommodation styles will be offered to allow affordability and accessibility for all visitors;
- Protection and enhancement of the intrinsic values of Rottnest Island's natural and cultural heritage; and
- Long-term sustainability through all activities, businesses and infrastructure being commercially viable and eco-friendly while mindful of the traditional Rottnest holiday ethos.

ROTTNEST ISLAND MARINE MANAGEMENT STRATEGY

Background

With over 500,000 visitors to the Island the Rottneest Island Management Plan 2003-2008 (RIMP) identified marine management as a critical issue and recommended the Authority: *“Develop and implement a marine management strategy that promotes equity of access and opportunity for a quality experience among recreational users of the Marine Reserve, protecting its environmental values, in coordination with the Department of Fisheries and in consultation with relevant stakeholders”*.

The Rottneest Island Marine Management Strategy Working Group (the Working Group) was formed in June 2003 in response to the above RIMP recommendation. The Working Group included consideration of a marine reserve zoning plan in light of the concerns expressed about zoning proposals that arose following the release of the draft RIMP 2002-2007.

The Working Group consisted of representatives from:

- Department of Fisheries
- Department of Conservation and Land Management (CALM) now known as Department of Environment and Conservation (DEC)
- CSIRO
- Murdoch University
- Western Australian Museum
- Rottneest Island Marine Issues Advisory Committee (RIMIAC)
- Rottneest Island Environmental Advisory Committee
- RecFishWest
- Conservation Council of Western Australia
- Western Australia Dive Tourism Association
- Outdoors Western Australia
- Charter Boat Owners Association

Strategic Objectives

The Group developed the following strategic objectives:

1. To provide undisturbed areas representative of marine habitats for marine biodiversity conservation.
2. To provide for marine education and nature appreciation.
3. To provide for quality recreational fishing opportunities.
4. To provide scientific reference areas and the opportunity for marine scientific research.
5. To provide the opportunity for appropriate and compatible commercial and private recreational water sports and activities.

The zoning plan for the Marine Reserve was developed by the Group through a collaborative process. In-principle agreement on the locations of the sanctuary zones was achieved by the Group. The participants in the Working Group represented a broad range of views and all members made compromises to achieve the ‘best fit’ of strategies to meet the objectives set. Consensus was reached for the sanctuary zones - Thomson Bay, Parker Point and Green Island. Two sanctuary zones - West End and Armstrong Bay were acceptable to the majority of members but were considered unacceptable by three members of the working group.

The Group also developed a range of other actions that were not covered in the RIMP 2003-2008 to ensure the marine waters of Rottneest Island are managed in accordance with the objectives set.

Values of Rottnest Island Marine Waters

Ecological

Rottnest Island's marine environment is ecologically 'special' in many ways. Its geographic isolation from the mainland and location near the Leeuwin Current have resulted in its waters being characterised by a unique blend of tropical and temperate species, with a prominent component of Western Australian endemic species (Wells and Walker 1993).

The Island also has the southern-most occurring assemblages of tropical corals in the State and possibly in Australia. In some cases Rottnest Island is the southern-most location for some coral species (Hutchins 1985, Wells et al. 1993a, Wells et al. 1993b, Veron and Marsh 1988). Rottnest Island also contains a diverse mix of habitats and communities, ranging from coral reef to seagrass habitats. The ecological values of the marine waters in the Marine Reserve are described in detail in the RIMP 2003 - 2008¹.

The ecological values of the Reserve contribute significantly to the attractiveness of the Island to visitors. Many visitors come to the Island to enjoy activities such as fishing, swimming and diving that are dependent on the maintenance of the ecological aspects of the Reserve, particularly healthy and diverse marine habitats that display a wide range of species. Sanctuary zones are a current management tool in place to manage the impacts of human activities.

Recent research conducted at Rottnest Island suggests that faunal abundance and distribution in addition to the population structure of some species is higher in sanctuary zones when compared to similar habitats where extractive activity is permitted (Babcock, et al. 2005). In particular it has been indicated that the density of Western Rock Lobster, *Panulirus cygnus*, is approximately 34 times higher in the Kingston Reef sanctuary zone than in other areas around the Island where recreational fishing is permitted (Babcock, et al. 2007).

Considerable anecdotal evidence suggests many 'iconic' species such as blue groper and dhufish now appear to be either absent from many parts of the Reserve's waters or their size range is reduced (Edwards, 2001). In addition, other human activities such as inappropriate boating and diving practices appear to have caused localised habitat damage in some areas. It is clear that further research and monitoring are required to address the differences in opinions with respect to impacts and biodiversity.

The high conservation values of corals, seagrasses, tropical fish, molluscs and invertebrates were identified and presented to the Working Group who took this into consideration when developing the marine management strategy.

Social

Rottnest Island's proximity to the Perth metropolitan area has made it a highly valued place for recreational activities. Many of the visitors that come to the Island undertake marine-based recreational activities. These activities include swimming, diving, fishing, surfing, kayaking and boating amongst others. The main social features of the Marine Reserve are described in the RIMP 2003 - 2008².

In summary these include:

- marine amenity;
- visual appreciation for land-based as well as vessel-based visitors;
- commercial/private use; and
- experiences of the marine environment.

¹ Part B, Section 4

² Part B, Section 7

THE ROTTNEST ISLAND ZONING PLAN

Background

The Marine Reserve is approximately 3,828 hectares in size. Previous reports that made recommendations for marine reserve zones at Rottneest Island were referred to in the development of new sanctuary zones. These recommendations included the Environmental Protection Authority (EPA) System 6 Report (1983) and previous RIMPs 1985-1990, 1997-2002 and the current RIMP 2003-2008.

The following were recommendations from these reports relating to the zoning plan of Rottneest Island:

- Reserves from Eagle Bay to Fish Hook Bay and from Salmon Point to Phillip Rock for the purposes of scientific research and education. Neither were established. [EPA System 6 Report (1983)]
- Along with the above recommendations the 1985-1990 RIMP recommended five marine appreciation zones at Radar Reef, Parker Point, Phillip Rock/Natural Jetty, Kingston Reefs (Thomson Bay) and from Armstrong Point to Parakeet Bay. As a result the Parker Point and Kingston Reef Sanctuary Zones were established for prohibition of fishing in 1988. However the area established was smaller than that recommended in the EPA and RIMP reports.
- In 1994, the report of the Marine Parks and Reserves Special Working Group titled "A Representative Marine Reserve System for Western Australia" noted that balancing the need for public access to the natural resources of Rottneest Island with the need to ensure adequate environmental protection was no easy task. The Working Group considered that providing special protection through zoning of the areas identified by the 1983 EPA Report was both 'necessary and urgent'. However this recommendation was not implemented at the time.
- The 1997-2002 RIMP recommended that the Kingston Reefs (Thomson Bay) and Parker Point sanctuary zones be extended under Fisheries legislation. This had not occurred by the release of the 2003-2008 RIMP.

Previous Zoning

Previously the Marine Reserve around Rottnest Island was classified into four major zones:

- Sanctuary zones:** There were two sanctuary zones in place at Parker Point and Kingston Reefs (Thomson Bay). Swimming, snorkelling, diving and kayaking/canoeing were allowed within these sanctuary zones. Extractive activities were not permitted.
- Recreation zones:** The recreation zones extended out 800m from the high water mark of the shoreline of Rottnest Island. Commercial and amateur net fishing were prohibited in these zones. However some forms of commercial fishing (e.g. line and rock lobster fishing) were permitted within these zones.
- General Use Waters:** This area of water lies beyond the 800m extension from the shoreline and goes out to the Marine Reserve boundary. Commercial fishing activities that are not specifically excluded or restricted by Fisheries notices were permitted in these waters.
- Sub zones:** Regulations under Rottnest Island Authority, Department of Planning and Infrastructure (DPI) and Department of Fisheries legislation are in place to further control specific activities.

These controls include watercraft speed limits, fishing restrictions in some areas during daylight hours, the control of the use of spear guns, discharge of sewage from recreational vessels prohibited and the restriction in the take of some marine species. These controls are in place in different locations around the Island and are considered as sub zones.

The current Rottnest Island Management Plan includes actions and recommendations concerning the Marine Reserve and should be referred to as the Marine Management Strategy recommendations that complement the RIMP. A copy of the RIMP is available on the Rottnest Island website (<http://www.rottnestisland.com>).

Changes to the Zoning Plan

On 1 July 2007 new and extended sanctuary zones at Rottnest Island came into effect under Section 43 of the Fisheries Resources Management Act 1994 (FRM Act). The zoning plan now includes the extension of two existing sanctuary zones and the creation of three new sanctuary zones. In total the two amended and three new sanctuary zones will cover 663 hectares or approximately 17% of the Reserve waters. Table 1 gives the areas of the different zones within the Marine Reserve.

Table 1: Area of zones in Rottnest Island Marine Reserve

| Name of Area | Current Area (ha) | New Area (ha) | Length of Rottnest Island Coastline (m) | % length of Rottnest Island Coastline (m) | % area of Marine Reserve |
|-------------------------------|-------------------|---------------|---|---|--------------------------|
| Recreation Zone | 2495 | 1929 | 31201 | 83 | 50.4 |
| General Use Waters | 1202 | 1236 | - | - | 32.3 |
| Kingston Reefs Sanctuary Zone | 126 | 164 | 0 | 0 | 4.3 |
| Armstrong Bay Sanctuary Zone | 0 | 82 | 1416 | 4 | 2.1 |
| Parker Point Sanctuary Zone | 5 | 89 | 1902 | 5 | 2.3 |
| Green Island Sanctuary Zone | 0 | 92 | 1292 | 3 | 2.4 |
| West End Sanctuary Zone | 0 | 236 | 2073 | 5 | 6.2 |
| Total | 3828 | 3828 | 37884 | 100 | 100 |

Amended Zones

Sanctuary Zone 1

Kingston Reefs (Thomson Bay)

The previous Kingston Reefs sanctuary zone was gazetted in 1988 and is located offshore from Thomson Bay in the north-east part of the Rottnest Island Marine Reserve. The existing sanctuary zone was approximately 126 hectares in area.

What has changed?

The amended sanctuary zone is now approximately 164ha in size, comprising 4% of the total Marine Reserve area. It has been expanded on the south-western boundary to incorporate more of the reef environment. Taking of any marine flora or fauna is prohibited within this sanctuary zone area.

To facilitate compliance, the boundaries of the sanctuary zone have been aligned where possible with existing navigational markers to the north-east, west and south-east boundaries.

Why the change?

Ecological

This is the only site near the Perth metropolitan area that has been a sanctuary zone for a substantial period of time. The reef contains coralline algae habitat, is a breeding locality for an endemic brittle star and contains species of sea stars and corals that are uncommon elsewhere (Hutchins 1985, Wells et al. 1993a, Wells et al. 1993b, Veron & Marsh 1988).

The reef in the wash zone and mixed seagrass habitats provide sites for resident reef fish species e.g.: dhufish, bald chin groper and blue groper. This reef habitat provides refuge for western rock lobster with research indicating success in the larger size, abundance and population structure of this species occurring within the sanctuary zone compared to similar habitats outside (Babcock, R. C., et al, 2005).

Social

The zone is popular for snorkeling, wreck viewing, diving, surfing and jet skiing. Over summer a semi submersible vessel conducts a number of daily tours within the reef area and snorkel tours over the wrecks that lie within the zone. A popular dive wreck trail has been established over two of the wrecks in the sanctuary zone. The boundary has been aligned to ensure that the wreck 'Gem' lies within this sanctuary zone.

Every effort has been made to minimize impacts on existing users of the small additional area that will be added to the existing sanctuary zone. The boundaries have remained offshore to allow for shore-based fishing from nearby Bathurst Point.

Vessel-based non-extractive activities are encouraged in this area such as underwater photography, diving and nature appreciation.

Sanctuary Zone 2

Parker Point

The previous Parker Point sanctuary zone was gazetted in 1988 and is located on the south shore of Rottnest Island and was approximately 5 hectares in area.

What has changed?

The amended sanctuary zone has been expanded to include Little Salmon Bay, Salmon Point and a small section of Salmon Bay. The amended sanctuary zone is now approximately 89 hectares comprising 2% of the Marine Reserve waters. The boundary of the zone will not impinge on the current permitted commercial rock lobster fishing area.

Why the change?

Ecological

The zone contains both rocky reef and coral communities. The coral at Pocillopora Reef is considered the southern most tropical coral reef in Australia. The changes to the boundaries of this zone will allow protection of staghorn coral communities that are not found elsewhere at Rottnest Island and that were not previously protected.

The increase in the size of the sanctuary zone will provide greater levels of protection to the habitats and communities represented in the area. The area is also important for its diversity of tropical fish species and as a result has high conservation values for both fish and corals.

Social

This area is popular for a range of recreational activities including snorkelling and diving. A snorkel trail exists at Parker Point and another has been recently installed at Little Salmon Bay. The extensions to the area of the zone will substantially enhance the ability of visitors to experience marine-based activities in the area and reduce conflict of use with fishing activities.

Vessels are prohibited from entering a small portion of the sanctuary zone and therefore no anchoring occurs. This is to minimise damage to the Pocillopora coral reef at Parker Point from anchoring and protects the safety of snorkellers. This 'no boating area' has been retained but boats will be permitted to traverse the remainder of the enlarged sanctuary zone and anchor on bare sand avoiding important seagrass and reef habitat.

New Zones

Sanctuary Zone 3

Green Island

The area included in the Green Island sanctuary zone lies off the south shore of Rottneest Island.

What has changed?

A sanctuary zone has been implemented in the waters around Green Island between Kitson Point and the eastern point of Strickland Bay. The Green Island sanctuary zone is now approximately 92 hectares in area comprising 2% of the total marine reserve.

Shore-based fishing is permitted from the Green Island jetty only by means of rod and line or line held in the hand. Taking of any marine flora and fauna by all other means is prohibited.

Why the change?

Ecological

The waters in the Green Island sanctuary zone contain representative areas of relatively undisturbed mixed seagrass habitats. Seagrasses provide nursery areas for juvenile marine species including crustaceans such as the western rock lobster. It has also been reported to be a resting location for loggerhead turtles in winter. The implementation of a sanctuary zone in this location will provide for greater protection of seagrass meadows. In addition it will also provide protection for the organisms supported within this productive habitat. The area also contains extensive and diverse macroalgae, especially rodoliths.

Social

The area in the Green Island sanctuary zone is popular for diving due to its superb caves and associated marine life. Other popular shore-based activities include snorkeling, squid fishing and swimming. A jetty is located in this bay which allows for people with disabilities to fish and enjoy the area. The location is a stop on the Bayseeker bus route with toilet and jetty facilities established.

To minimize impacts on current shore-based extractive activities, jetty-based fishing will continue in this area. Area other than that surrounding the jetty will be a sanctuary zone and will reduce potential conflicts between fishers and other recreational users such as snorkellers and divers.

Sanctuary Zone 4

West End

The West End Demersal Sanctuary Zone lies in the western-most part of Rottnest Island.

What has changed?

A demersal sanctuary zone has been implemented in the waters off the West End. It encompasses the coastal waters from Radar Reef, Cape Vlamingh and Cathedral Rocks and is designed to protect the bottom dwelling or 'demersal' fish species. Shore-based fishing by means of a rod and line or line held in the hand is permitted along the platform locally known as Radar Reef in this sanctuary zone. Trolling from boats targeting pelagic³ species of fish only is permitted. Taking of any marine flora and fauna by all other means is prohibited. The West End sanctuary zone is now approximately 236 hectares in area. This comprises 6% of the total Marine Reserve.

Why the change?

This zone is in response to previous recommendations outlined in the background and was considered by the Working Group in addition to new information on the conservation values of West End.

Ecological

The waters off West End contain important intertidal platforms with lush coralline algae and numerous invertebrates. There is a high proportion of tropical fish species, molluscs, invertebrates, coral and seagrasses. This area is unique to the Perth coastal areas and contains species not found elsewhere in Rottnest waters. The reef platform is a significant research site for several long term population studies of several mollusc species and echinoderm species. The area is recognised for its high diversity of tropical species which are not found along the Perth metropolitan coast.

The offshore rocks are known locations for basking and resting New Zealand Fur Seals and Australian sealions.

Social

This area is popular for recreational activities such as snorkeling in Fish Hook Bay and diving on the extensive caverns and canyons found off the end of West End. Land-based visitors appreciate the marine vistas, views of passing migrating whales and basking sealions and fur seals. An area of the Marine Reserve in this locality is known as 'Chicken Run' and has a history of trolling activity. Community feedback has indicated that trolling for pelagic species is important and recognized social characteristic that should be retained. For this reason this location has been designated a Demersal Sanctuary Zone.

Shore-based fishing by single line is permitted from the reef platform locally known as Radar Reef.

³ Pelagic species refers to those fish that are associated with surface or middle depths of a body of water, rather than the sea floor.

Sanctuary Zone 5

Armstrong

The Armstrong Sanctuary Zone lies off the northern most point of the Island encompassing the area from Armstrong Point to North Point.

What has changed?

A sanctuary zone has been implemented in the waters off Armstrong Bay / North Point. It encompasses the coastal waters from the eastern end of Catherine Bay to Parakeet Island. Shore-based fishing is permitted by means of a rod and line or line held in hand in certain areas that are sign posted. Taking of any marine flora and fauna by all other means is prohibited. The Armstrong Sanctuary Zone is approximately 82 hectares. This area comprises 2% of the total Marine Reserve.

Why the change?

This zone is in response to previous recommendations as mentioned in the background and was considered by the Working Group in addition to new information on the conservation values of Armstrong Bay and North Point area.

Ecological

This area contains the richest faunal site on the north side of the Island. Moreover, the area is unusual in that it contains habitats that are not replicated on the mainland. Little Armstrong Bay contains many faviid corals, gorgonians, some soft corals, sponges and ascidians as well as several species of sea stars and sea urchins not recorded in the other sanctuary zones. This sanctuary zone will provide for protection of these important habitats and communities.

Social

This area in the Armstrong sanctuary zone is popular for recreational activities such as swimming, snorkeling and diving. Some fishing occurs here although declining towards North Point. Potential impacts on recreational fishing have been minimised by allowing shore-based fishing in 2 separate areas within this sanctuary zone.

The boundary does not extend to the edge of the Rottnest Island Marine Reserve in consideration of existing activity of potting for crayfish that is popular in this location.

The Recreation Zone

The current Recreation Zone extends from the High Water Mark (HWM) to 800m offshore and applies throughout the Marine Reserve, except where sanctuary zones have been established within 800m. The total area of the Recreation Zone is 1929 hectares, which equates to approximately 50% of the total area of the Marine Reserve.

Why the change?

The Marine Reserve is a popular area for recreational activities such as fishing, swimming, wading, snorkeling, diving, and canoeing / kayaking. With the steady increase in the number of visitors to Rottnest Island each year, there is increased potential for conflicts between various activities, particularly commercial and recreational activities. In recognition of the high recreational importance of the Marine Reserve and the need to mitigate any potential user conflicts a Recreation Zone has been established.

Recommendation 13 of the 2003-2008 RIMP states 'pursue restriction on commercial fishing within the marine reserve in coordination with Department of Fisheries'. At the time of publishing this recommendation has not been implemented. Further negotiation with the commercial fishing sector and the Department of Fisheries will be required prior to action on this recommendation

Activities and Uses Permitted

The table found in Appendix 1 outlines the uses permitted in each of the new zones.

Other Actions Considered by the Working Group

The Working Group developed a range of other actions to address the five strategic objectives of marine management within the Rottnest Island Marine Reserve. These actions were in addition to the recommendations relating to marine issues that were listed in the RIMP 2003-2008:

- Raise awareness of the need for and location of all management zones on Rottnest Island.
- Ensure efficient and effective surveillance and compliance.
- Provide on-site reference to sanctuary and no boating zones within the Marine Reserve.
- Prohibit / discourage inappropriate activities / programs and uses of all zones.
- Continue to develop and expand a community volunteer program (Honorary Bay Rangers) to assist with education, guidance and surveillance.
- Provide accurate and up to date materials for effective education and interpretation.
- Provide basic information to all actual/potential users via existing databases (e.g. moorings), accommodation bookings, ferry tickets, and other means.
- Provide on-site marine based interpretive facilities (e.g. snorkel trails).
- Provide facilities for education groups on Rottnest Island.
- Utilise existing volunteer groups to provide interpretive and education materials and activities to visitors.
- Utilise existing volunteer groups to assist in the provision of information to recreational fishers.

- Enter into discussion with Department of Fisheries to develop joint management strategies for recreational fishing within the Marine Reserve.
- Promote a specific Rottnest Island fishing ethos.
- Work collaboratively with other government agencies to maintain and upgrade infrastructure to facilitate fishing where appropriate.
- Provision of associated facilities for recreational fishing (e.g. fish cleaning tables, transport to site with equipment, jetties and beach access pathways).
- Develop an integrated Marine Research Plan for Rottnest Island with relevant agencies and research organisations, which includes projects and commits funding to determine the effectiveness of the Marine Management Strategy.
- Ensure adequate resources are allocated for marine research.
- Disseminate research results to the general community.
- Continue the research application and approval process.
- Encourage and facilitate community marine monitoring programs.
- Promote Rottnest Island as a research site.
- Maintain the current research facility on Rottnest Island.
- Work with relevant government agencies to determine maximum vessel size for bays at Rottnest Island.
- Work with relevant agencies to promote safe boating practices at Rottnest Island.
- Continue the provision of a platform for discussion of marine issues raised, for relevant stakeholder groups (e.g. RIMIAC).
- Bring forward the implementation of RIMP 2003-2008 recommendation No.188 referring to the establishment of moorings for commercial charter operations.

THE NEXT STEPS

The next steps will be the ongoing implementation of the MMS to include a number of activities to meet the five strategic objectives of the Strategy.

Monitoring and Research

Establish a monitoring and research program within the Marine Reserve to monitor biodiversity and abundance of species and extend our knowledge of marine management including social research. This will be achieved both by research organisations and within the Rottnest Island Authority. The results will help in achieving the effectiveness of our management actions and implementing improved ones.

Education and Compliance

Education is of the highest importance to ensure visitors understand the need for marine management and the marine values of the Island. This will be achieved through extensive community awareness and on ground education specifically from RIA rangers, education and environment staff as well as other RIA staff, volunteers and interested groups. Both Fisheries Officers and Rottnest Island rangers have legislation allowing them to enforce and monitor rules within the Rottnest Island Marine Reserve.

Review

The Marine Management Strategy (MMS) forms part of the Rottnest Island Management Plan (RIMP) 2003-2008. The RIMP 2003-2008 is to be reviewed in 2008. The outcomes of the MMS such as changes in biodiversity and abundance of species are more meaningful when assessed over the medium to long term. Therefore the review of the MMS in 2008 will be limited to an assessment of the research program and refinement of the measurable outcomes. The MMS will then be reviewed at 5 year intervals as part of the RIMP to monitor progress towards the outcomes and objectives of the strategy.

Implementation Table

The implementation table in Appendix 2 lists the actions identified in the strategy and provides roles of responsibility, evaluation success measures and a proposed timeframe for implementation.

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APPENDIX 1. Activities and Uses Permitted in New Sanctuary Zones

| Activities | Parker Point SZ | Kingston Reefs SZ | Armstrong SZ | West End DSZ | Green Island SZ | Recreation Zone |
|--|------------------|-------------------|----------------|----------------|-----------------|------------------|
| Anchoring (avoiding important seagrass and reef habitat) | Y ¹ | Y | Y | Y | Y | Y ¹ |
| Mooring | N | N ² | N ³ | N | N | Y ¹ |
| Recreational vessel – motorised, tenders and yachts | Y ^{1,4} | Y | Y ⁴ | Y | Y ⁴ | Y ^{1,4} |
| Non-motorised boating – wind surfing, canoes, kayaks, surf skis, sailing dinghies etc | Y ¹ | Y | Y | Y | Y | Y ¹ |
| Snorkelling/diving | Y | Y | Y | Y | Y | Y |
| Vessel-based recreational line fishing | N | N | N | Y ⁵ | N | Y ^{6,7} |
| Shore-based recreational line fishing | N | N | Y ⁸ | Y ⁸ | Y ⁸ | Y ^{6,7} |
| Recreational rock lobster fishing | N | N | N | N | N | Y ^{6,7} |
| Recreational trolling and catching of fish only for human consumption | N | N | N | Y ⁵ | N | Y ^{1,6} |
| Recreational netting (shore or vessel based) | N | N | N | N | N | N |
| Recreational abalone collection | N | N | N | N | N | Y ^{6,7} |
| Take, landing and possession of sedentary organisms | N | N | N | N | N | Y ⁶ |
| Commercial – rock lobster fishing | N | N | N | N | N | Y ⁶ |
| Commercial fishing (netting, long lining, wet lining, collecting of coral, live rock, sand, mud crabs, octopus, beach seine, trap fishing, aquarium, trawling, shell collecting) | N | N | N | N | N | Y ⁶ |
| Charter vessel fishing | N | N | N | N | N | Y ^{1,6} |
| Charter vessel other (e.g. diving) | Y ¹ | Y | Y | Y | Y | Y ¹ |
| Research ⁹ | Y | Y | Y | Y | Y | Y |
| Discharge of wastes from boats ¹⁰ | N | N | N | N | N | N |
| Spearfishing | N | N | N | N | N | Y ¹¹ |

The above activities may also be subject to other RIA, DPI and / or Department of Fisheries legislation as outlined below:

1. Subject to a No Boating Area subzone - for locations refer to the Rottneest Island Marine and Boating Guide.
2. Commercial moorings only permitted.
3. One mooring only permitted.
4. Five knot speed limit applies - refer to RI Marine & Boating Guide.
5. Trolling targeting pelagic species only.
6. Subject to Department of Fisheries regulations.
7. Fishing during daylight hours prohibited in certain discrete areas - refer to Rottneest Island Marine and Boating Guide.
8. Areas permitted shown by land-based signage.
9. Research permit required from Rottneest Island Authority, Department of Environment and Conservation and / or the Department of Fisheries.
10. As of 1 October 2005, discharge of waste is prohibited within the whole of the Marine Reserve waters.
11. Prohibited in some areas of recreation zone- refer to Rottneest Island Fishing guide.

APPENDIX 2. Implementation Timeline and Responsibilities

| Objective | Implementation | Responsibility | Evaluation Success Measures | Timeframe |
|--|--|---|--|--|
| To provide undisturbed areas representative of marine habitats for marine biodiversity conservation. | Initiate gazettal of sanctuary zone notices under the appropriate legislation. | RIA, Dept of Fisheries | Establishment of three new and two extended sanctuary zones under the FRM Act by 2008 | July 2007 |
| | Raise awareness of the need for, and the locations of, all zones on Rottneest Island. | RIA, Dept of Fisheries, Conservation Groups, and Tour companies | Articles in relevant publicity material, brochures printed | 2007 and ongoing |
| | Ensure efficient and effective surveillance and compliance. | RIA, Dept for Planning & Infrastructure; Dept of Fisheries | RI Rangers are delegated officers under FRM Act | 2007 and ongoing |
| | Prohibit inappropriate activities and uses of all zones. | RIA, Dept of Fisheries | Minimal reports of inappropriate activities | Ongoing |
| | Continue to develop and expand a community volunteer program. | RIA | Continue and extend existing volunteer programs | Ongoing |
| | Development and promotion of on-site reference to sanctuary and no boating zones within the marine reserve. | RIA | Installation of land based signage. Installation of sanctuary zone markers for reference by vessel based Marine Reserve users | July 2007 November 2007 |
| | Develop an integrated Marine Research Plan for Rottneest Island with relevant agencies and research organizations which include projects and commits funds to determine the effectiveness of the Marine Management Strategy. | RIA | A marine research plan developed Marine Research Program commenced A public reporting research information program commenced | December 2007 March 2007 June 2008 |
| | Develop an environmentally sensitive anchoring plan for the sanctuary zones | RIA | An anchoring plan developed | Mid 2008 |
| | Review relevant acts such as Fisheries Resources Management Act 1994 for any cross-references in legislation that can be helpful in compliance, strategies and procedures | RIA | Review of relevant legislation | November 2008 |

| Objective | Implementation | Responsibility | Evaluation Success Measures | Timeframe |
|--|---|---|---|--|
| To provide for marine education and nature appreciation. | Provide appropriate information on zoning to relevant media, tours, educational and school programs. | RIA; Conservation Groups; Dept of Fisheries; Tour companies | Ongoing promotion with accurate marine related brochures, tours, and programs are in place | Ongoing July 2007 - Fishing guide September 2007 - Marine and Boating guide |
| | Provide accurate and up to date material for effective education and interpretation. | RIA; WA Museum, DEC, Dept of Fisheries; all Universities & research organizations | Review customer satisfaction with opportunities for marine education and nature appreciation | November 2007 and ongoing |
| | Prohibit inappropriate activities and programs. | RIA, Dept Fisheries | Minimal reports of inappropriate activities Timely release of relevant information to all visitors to the Island | Ongoing Ongoing |
| | Coordinate and provide on-site marine based interpretative facilities for all Island visitors. | RIA; Dept of Fisheries; DEC | New snorkel trails, interpretative signage, brochures printed | July 2007 and ongoing |
| | Provide and support facilities for education groups on the Island. | RIA | Kingston Barracks utilised by education groups to maximum capacity. Bookings to reflect this. | Ongoing |
| | Utilise volunteer groups to assist in the provision of interpretative and education materials and activities to visitors. | RIA; Dept of Fisheries, Honorary Bay Rangers; Rottnest Voluntary Guides Assoc. | Positive feedback on volunteer program received by RIA through customer satisfaction forms | Ongoing |

| Objective | Implementation | Responsibility | Evaluation Success Measures | Timeframe |
|--|---|--|---|--|
| To provide for quality recreational fishing opportunities. | Enter into discussion with the Dept of Fisheries to develop joint management strategies for recreational fishing within the Marine Reserve. | RIA, Dept of Fisheries | New management strategies in place. | Ongoing |
| | Coordinate efficient and effective surveillance and compliance. | RIA, Dept of Fisheries | RI Rangers are delegated officers under FRM Act. | 2007 and ongoing |
| | Develop and promote a specific Rottneat Island fishing ethos. | RIA, Dept of Fisheries, RecFishWest | Creel survey demonstrates adherence to Rottneat Island fishing ethos. | May 2008 and ongoing |
| | | RIA | Signage installed at popular fishing locations. | September 2008 |
| | Partner with other State Government agencies to maintain and upgrade infrastructure to facilitate fishing where appropriate. | RIA Dept for Planning & Infrastructure | Market research customer satisfaction rating with respect to recreational fishing opportunity. | Ongoing |
| | Provision of associated facilities for recreational fishing. | RIA | Survey of fishers demonstrate use of facilities and high customer satisfaction. | May 2008 |
| | Develop an integrated marine research plan with other relevant government agencies and research organizations. | RIA, relevant agencies, Universities & research organizations. | Marine research plan developed Marine Research Program commenced. A program reporting research information program commenced. | December 2007 March 2007 June 2008 |

| Objective | Implementation | Responsibility | Evaluation Success Measures | Timeframe |
|---|--|---|--|-----------------------|
| To provide scientific reference areas and the opportunity for marine scientific research. | Provide adequate resources allocation for marine research. | RIA | Funding allocated on annual basis | June 2007 and ongoing |
| | Develop an integrated marine research plan for Rottnest Island with the relevant government agencies and research organizations. | RIA, relevant agencies, universities and research institutions, | A prioritized marine research plan developed | December 2007 |
| | Review and disseminate research results to the general community. | RIA | Marine Research Program commenced | March 2007 |
| | | RIA | A program reporting research information to the public commenced. Media articles produced. | June 2008 |
| | Continue the research application and approval process. | RIA | Website link is established. | June 2007 and ongoing |
| | Encourage and facilitate community marine monitoring programs. | RIA, community groups | Research continues to be undertaken at Rottnest Island | Ongoing |
| | Promote Rottnest Island as a research site. | RIA, UWA, RIEAC | Marine community programs in place. | Ongoing |
| | Maintain the current research facility on Rottnest Island. | RIA, UWA | Ongoing use of the Research Station | Ongoing |
| | Seek additional sources of funding for research and monitoring from State and Commonwealth programs relevant to the Strategy. | RIA | Funding received for research/ monitoring programs. | Ongoing |

| Objective | Implementation | Responsibility | Evaluation Success Measures | Timeframe |
|--|---|---|--|----------------------------|
| To provide the opportunity for appropriate and compatible commercial and private recreational water sports and activities. | Establishment of inter-departmental liaison with relevant State Government agencies to determine maximum vessel size for bays at Rottnest Island. | RIA; Mooring contractors; RIMIAC (incl: DPI, Charter Boat Assoc.; recreational boaters) | Maximum sizes determined | September 2008 |
| | Work with relevant State Government agencies to promote boating practices at Rottnest Island. | RIA Dept for Planning & infrastructure; DEC | Incorporate information into RI Marine & Boating Guide | September 2007 and ongoing |
| | Ensure efficient and effective surveillance and compliance. | RIA, Dept Fisheries | RI Rangers are delegated officers under FRM Act | 2007 and ongoing |
| | Discourage inappropriate activities and uses of all zones. | RIA; | Minimal reports of inappropriate activities | Ongoing |
| | Continue to provide a platform for marine issues that can be discussed by relevant stakeholder groups. | RIA, WADTA, DPI; Charter Boat Assoc. yacht clubs; RIMIAC | RIMIAC continues to meet quarterly | Ongoing |
| | Use volunteer groups to assist in the provision of interpretative and education materials and activities to visitors | RIA | Positive feedback on volunteer program received by RIA through customer satisfaction forms | July 2007 |
| | Initiate the implementation of RIMP 2003-2008 recommendation No.188 referencing commercial charter moorings. | RIA | Commercial moorings in place. | December 2008 |
| | Implementation recreational moorings in Sanctuary zones. | | Recreational moorings in place. | December 2008 |

