



Ricketts Point Marine Sanctuary



Management Plan November 2005

This Management Plan for Ricketts Point Marine Sanctuary is approved for implementation. Its purpose is to direct all aspects of management of the sanctuary until the plan is reviewed.

A Draft Management Plan for the sanctuary was published in November 2004. Three hundred and seven submissions were received and have been considered in preparing this approved Management Plan.

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**RICKETTS POINT MARINE SANCTUARY
MANAGEMENT PLAN**

Published in November 2005 by Parks Victoria
Level 10, 535 Bourke St, Melbourne, Victoria, 3000.

Cover: Notched shore crab *Paragrapsus quadridentatus* on Neptune's Necklace *Hormosira banksii*. (Photo: William Boyle)

Parks Victoria 2005 *Ricketts Point Marine Sanctuary Management Plan*, Parks Victoria, Melbourne

National Library of Australia
Cataloguing-in-Publication entry
Parks Victoria

Ricketts Point Marine Sanctuary: management plan.

Bibliography.
ISBN 0 7311 8347 9.

1. Marine parks and reserves - Victoria - Ricketts Point -
Management. 2. Ricketts Point Marine Sanctuary (Vic.). I.
Title.

333.9164099451

Acknowledgements

Acknowledgement of *Country*. In their rich culture, Indigenous Australians are intrinsically connected to the continent – including the area now known as Victoria. Parks Victoria recognises that the sanctuary is part of *Country* of the Traditional Owners.

Parks Victoria is grateful to all those organisations and individuals who have contributed to this Final Management Plan. Special thanks go to members of the Ricketts Point Marine Sanctuary Management Plan Advisory Group, which comprised Ken Beadle, Michael Coleman, Alex Edwards, Darryn Costanzo, Phil Goodier, Paul Hardie, Ian Jones, Michael Norris, Jody Plecas, Wendy Roberts, Dane Robinson, Phil Stuart, Amy Weir and Bob Whiteway.

Note: Technical terms used in this plan are explained in the **Glossary** at the end of the plan.

Disclaimers

This plan is prepared without prejudice to any negotiated or litigated outcome of any native title determination applications covering land or waters within the plan's area. It is acknowledged that any future outcomes of native title determination applications may necessitate amendment of this plan; and the implementation of this plan may require further notifications under the procedures in Division 3 of Part 2 of the *Native Title Act 1993* (Cwlth).

The plan is also prepared without prejudice to any future negotiated outcomes between the Government/s and Victorian Aboriginal communities. It is acknowledged that such negotiated outcomes may necessitate amendment of this plan.

Every effort has been made to ensure that the information in this plan is accurate. Parks Victoria does not guarantee that the publication is without flaw of any kind and therefore disclaims all liability for any error, loss or other consequence which, may arise from you relying on any information in the publication.

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FOREWORD

Ricketts Point Marine Sanctuary protects a small sample of the eastern shoreline environments of Port Phillip Bay including intertidal and subtidal reefs, sandy beaches, seagrass beds, and unusual geomorphological features. The sanctuary provides habitat for a diverse range of invertebrates, fish, and birds in a highly urbanised setting.

The sanctuary has long been a popular seaside destination for Melburnians and is significant for its potential for enjoyment of marine environments and in particular marine education.

Many in the community maintain strong associations with the sanctuary, including the Traditional Owners, a number of local environmental and community groups and individuals such as Marine Care, the residents of the Beaumaris area and the education and research community.

The care of the sanctuary is not a task for the government alone, nor only for those who live on the coast. It is a task for the whole Victorian community. This Management Plan sets out the ways in which we can work together to learn about, protect and sustain the valuable natural and cultural values of the sanctuary today and for future generations.

I thank the Ricketts Point Marine Sanctuary Advisory Group for their valuable contribution to the plan, and also wish to thank those individuals and organisations who made submissions on the draft plan. I look forward to the community's ongoing involvement in and support for the management of Ricketts Point Marine Sanctuary.



JOHN THWAITES MP
Minister for Environment

APPROVED MANAGEMENT PLAN

This Management Plan has been prepared under section 17D of the *National Parks Act 1975* (Vic.) and is approved for implementation.

The plan provides the basis for the future management of Ricketts Point Marine Sanctuary. It was finalised following consideration of the 307 submissions received on the Draft Management Plan.



PROF LYNSDAY NEILSON
Secretary to the
Department of Sustainability and Environment



MARK STONE
Chief Executive
Parks Victoria

INTRODUCTION TO THE MARINE ENVIRONMENT

Victorians are custodians of some of the most remarkable, diverse and culturally important marine environments on Earth. These include deep open water, shallow embayments, rocky reefs, canyons, seagrass meadows, tidal sandflats and mudflats, and estuaries, and they support more than 12 000 known species. Around 90% of these marine species are found only in the waters of southern Australia.

Broadly speaking, Victoria has responsibility for the waters which extend off-shore to three nautical miles and cover around 70 000 square kilometres. Marine National Parks and Marine Sanctuaries make up about 5% of this area, but protect a range of significant species and important habitats.

The vast three-dimensional marine environment has characteristics that are very different from those of the land and atmosphere. The fundamental physical properties — pressure, temperature, salinity, density and availability of nutrients and gases — are all very different. There are also great differences in the types of substrates and the physical and biological processes that occur, such as tides, currents, light penetration, erosion, sedimentation, oxygen uptake, life cycles and even the food chains.

The organisms that occupy the marine environment are different as well. On land vascular plants dominate, but in marine habitats they are very rare, occurring only in very shallow water on sheltered coastlines. In most marine environments their ecological roles in photosynthesis and oxygen production are undertaken by algae, which range in size from giant kelps to minute single-celled species. Other single-celled organisms such as diatoms, cyanobacteria, dinoflagellates and forams, together with invertebrate larvae and marine fungi, make up most of the abundant marine plankton that is the basis of all marine food chains.

As on land, invertebrates, including molluscs (e.g. octopus, abalone, snails), crustaceans (e.g. crabs, lobsters, tiny amphipods) and echinoderms (e.g. sea cucumbers, sea stars and sea urchins), dominate the marine fauna. But insects — the most abundant invertebrates on land — are almost absent. The dominant

vertebrates are fish, although mammals and reptiles also inhabit the marine environment and many birds inhabit both realms.

Although they are very different physically and biologically, the land, atmosphere and marine environments are interconnected. Water and gases are transferred between oceans and the atmosphere. There are animals with both marine and freshwater life stages, and some species breed in estuaries where fresh water from the land mixes with oceanic salt water. Fresh water and sediments from catchments far inland are dispersed into coastal waters, bringing with them nutrients needed to maintain inshore marine ecosystems but also pollution from human activities.

The sea interconnects marine habitats over great distances. Tides and currents move sediments, plankton and organic matter into and through habitats, along with flotsam, jetsam, ballast water and oils from catchments or inshore waters, released from ships on the open seas or washed from the shores of other countries. Many marine animals migrate long distances, passing freely into and out of Victorian waters and spending much of their lives in the open ocean.

A vision for Victoria's system of Marine National Parks and Marine Sanctuaries

‘A world-class system of Marine National Parks and Marine Sanctuaries that conserves the diversity of Victoria's marine environments, protected and enjoyed by Victorians and visitors, forever.’

This vision for Victoria's system of Marine National Parks and Marine Sanctuaries is detailed in the *Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003b). It is described in the following extract:

‘The vision for Victoria's system of Marine National Parks and Marine Sanctuaries is to maintain marine ecosystems in their natural state, enjoyed by visitors and protected from the effects of inappropriate activities. The system will safeguard representative examples of undisturbed natural marine habitats, respect cultural heritage values, and be a place of inspiration, enjoyment and renewal for all

people. The system will complement our world-class national parks system on land.

This vision aims to preserve the diversity of our marine environment, its flora and fauna, its natural beauty, and the diversity of activities that may be enjoyed there. It is a vision that invites all Victorians to become involved, to take pride in our Marine National Parks and Marine Sanctuaries, and to share in their stewardship.'

Contribution of Ricketts Point Marine Sanctuary to the statewide system

The Ricketts Point Marine Sanctuary is significant in the statewide system for its contribution to representation of the eastern shoreline environments of Port Phillip Bay, and its potential for public education and enjoyment of marine environments.

Implications for management

The differences and connections in the marine environment mean that Victoria's Marine National Parks and Marine Sanctuaries must be managed somewhat differently from land environments. Natural, recreational and cultural values may be affected by the use of both land and marine areas some distance away, over which sanctuary managers have no direct control or influence. Impacts on one marine habitat can quickly affect another, and

human activities and natural events on land and in the atmosphere can have widespread consequences for the marine environment. Boundaries in the ocean can be difficult to define, and the effects of human activities can be hidden from view. Like the atmosphere, but in contrast to land, the marine environment is a common resource which is rarely in private ownership and there are few natural or artificial barriers to movement. Many of the strategies used to concentrate the impacts of recreational activities in terrestrial parks (e.g. the creation of walking tracks and picnic areas) are not feasible in the marine context.

Conserving cultural places is also a challenge because it is difficult to identify an underwater place or monitor activities that take place on the open sea or under water. Sea *Country*, and cultural associations to, or past use of, underwater places which were exposed before the sea level rose must also be considered.

The long-term protection of the Marine National Parks and Marine Sanctuaries relies on the support and goodwill of the community, together with the help of coastal managers and government agencies. The plan seeks to foster a strong sense of custodianship of the sanctuary and to strengthen its protection while respecting cultural and community associations with the area.

SUMMARY

The Ricketts Point Marine Sanctuary (115 ha) protects a diversity of habitats, including rocky sandstone intertidal and subtidal reefs, sandy beaches, subtidal soft substrates and seagrass beds, in a small, accessible area in a highly urbanised setting. The sanctuary has diverse invertebrate fauna and also provides roosting and feeding areas for migratory and threatened bird species. The sanctuary contains unusual geomorphological features, including extensive rock platforms and sea-caves.

The beaches around Ricketts Point have inspired many artists and have long been a favoured destination for bathing and daytrips. The lasting appeal of the beach-side experience is highly valued by the community and local residents.

The sanctuary also provides opportunities for visitors to enjoy and appreciate natural and cultural values. Indigenous tradition indicates that the sanctuary is part of the *Country* of Boonwurrung¹ people.

Ricketts Point Marine Sanctuary was recommended by the former Environment Conservation Council for its contribution to the representation of eastern shoreline environments of Port Phillip and its potential for public education and enjoyment of the marine environment. The sanctuary is an important site for schools and educational organisations to teach students about the marine environment and its conservation.

Future management aims to provide sustainable opportunities for visitor enjoyment and appreciation of the sanctuary while maintaining and protecting sanctuary values.

Major management directions for the sanctuary include the following:

- Maintain the intertidal reef platform habitat for sea birds and shore birds and seagrass communities subject to natural processes.
- Protect natural processes to ensure an overall benefit to biodiversity and ecological communities.
- Undertake and encourage scientific research to improve the scientific basis for management.
- Recognise and reflect the Traditional Owners' cultural lore, interests, rights and aspirations relating to the sanctuary in planning and management.
- Maintain and promote opportunities for marine education.
- Promote opportunities for visitors to enjoy water sport and other activities, observe marine life and learn about the sanctuary.
- Manage recreational and educational activities within the sanctuary sustainably and with minimal impact on the sanctuary.
- Interpret and promote the sanctuary's values and its recreational and tourism opportunities and foster community appreciation and awareness.
- Support and encourage Friends and volunteer groups and promote opportunities for the community to work together and with Parks Victoria to achieve common goals for the sanctuary.
- Work collaboratively with agencies, the community and other stakeholders to assist in the sanctuary's management.

¹ This management plan adopts the spelling used by the Department of Justice. Boonwurrung may also be spelt in a number of different ways, including 'Boonerwung' and Bunurong'.

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1 INTRODUCTION

1.1 Location and planning area

Ricketts Point Marine Sanctuary is on the eastern side of Port Phillip at Beaumaris, about 20 km south of the Melbourne CBD (figure 1).

The sanctuary (115 ha) extends from the high water mark to approximately 500 m offshore. The shoreline boundary is 2.9 km long and begins at the on-shore sign at Fourth Street, north of Quiet Corner, and runs south along the foreshore past Ricketts Point to the on-shore sign in the inlet east of Table Rock Point. A series of in-water navigational aids marks the seaward boundary (section 6.1).

1.2 Creation of the sanctuary

Ricketts Point Marine Sanctuary forms part of the system of 13 Marine National Parks and 11 Marine Sanctuaries in Victorian waters. Selection of these areas was based on more than 10 years of research, investigation and community consultation by the former Land Conservation Council (LCC) and Environment Conservation Council (ECC), summarised in the Marine, Coastal and Estuarine Investigation Final Report (ECC 2000). The recommendations of the ECC accepted by government (Government of Victoria 2002) included reservation of the new parks and sanctuaries under the *National Parks Act 1975* (Vic.). Ricketts Point Marine Sanctuary was included on Schedule 8 of the National Parks Act on 16 November 2002 (appendix 1).

When created, much stronger penalties were applied for all forms of fishing, including shellfish collection in the sanctuary, than apply for taking or damaging fauna, plants or objects from the area.

The sanctuary varies from the ECC recommended area (ECC 2000) in that the boundary near Table Rock Point includes near-shore reefs but excludes boat-based recreational fishing spots near Sparks Street and the jetty outside the Sea Scouts Hall.

The sanctuary includes areas to high water mark that were formerly part of Sandringham Beach Park.

1.3 Plan development

This first Management Plan for the sanctuary was prepared by Parks Victoria, with significant input from the Ricketts Point Marine Sanctuary Management Plan Advisory Group and other stakeholders. It takes into account existing information, reports and research findings that relate to the sanctuary and is informed and supported by a range of best practice management systems.

The strategies outlined in this plan have been guided by the statewide *Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003a).

The plan is a strategic guide for future management of the sanctuary. As a public document, the plan establishes how Parks Victoria will protect the natural and cultural values of the sanctuary, and describes the services that will be provided to help visitors to enjoy, appreciate and understand the sanctuary in ways that are consistent with this. The plan also serves to inform and encourage cooperative land and water management and participation in community-based programs between Parks Victoria and the managers of areas adjacent to the sanctuary.

As a working document for the sanctuary, the plan informs Parks Victoria's development of Corporate Plans, serves as a framework for subsequent detailed planning and governs management activities.

This final plan was published as a Draft Plan for public comment in 2004, and 307 submissions were received of which 292 were regarding the proposed dog walking regulations.

Additional information and comments received were carefully considered and, where necessary, further consultation with the community and stakeholders was undertaken. Where appropriate, the final plan was amended in response to comments received.

Key changes to the draft in preparing this final plan included:

- establishing mechanisms to better manage and monitor visits by schools groups and monitor trampling impacts
- strengthening strategies to manage the impacts from marine pests and stormwater inputs in the sanctuary
- permitting appropriate Defence Forces training activities
- greater detail about plan implementation, reporting, performance measuring and evaluation at the end of the plan
- clarification of the role of Parks Victoria and other government agencies.

When approved by the Secretary to DSE and the Minister for Environment, the final management plan will direct future management of the Ricketts Point Marine Sanctuary, until reviewed.

2.1 Regional context

Ricketts Point Marine Sanctuary forms part of a representative system of 13 Marine National Parks and 10 other Marine Sanctuaries in Victoria, established within the broader context of a National Representative System of Marine Protected Areas (NRSMPA). The establishment of an NRSMPA contributes to the establishment of a global representative system of marine protected areas (TFMPA 1998).

Ricketts Point Marine Sanctuary is one of eight Marine National Parks and Marine Sanctuaries in the Victorian Embayments marine bioregion, as identified by the Interim Marine and Coastal Regionalisation for Australia (IMCRA). This regionalisation identified 60 marine bioregions, five of which apply to Victorian waters (IMCRA Technical Group 1998). Ricketts Point Marine Sanctuary protects approximately 0.04% of the Victorian Embayments marine bioregion.

The bioregion encompasses the larger bays and inlets of Port Phillip, Western Port, Corner Inlet–Nooramunga, Gippsland Lakes and Mallacoota Inlet. The bioregion is characterised by sheltered waters with extensive areas of subtidal and intertidal sediments.

Indigenous tradition indicates that the sanctuary is part of the *Country* of Boonwurrung people (section 5.1).

The area included in the sanctuary is significant to many people in the community, especially the Traditional Owners. A number of local environmental groups, including Marine Care, other community groups, individuals, residents of the Beaumaris area and the education and research community, have strong historical associations with the sanctuary area. Parks Victoria respects the community's traditional and historical associations with the sanctuary area.

The foreshore adjacent to Ricketts Point Marine Sanctuary is within the City of Bayside (section 7.2).

Ricketts Point Marine Sanctuary is within the Dandenong Catchment of the Port Phillip and

Western Port Catchment Region. The catchment is highly urbanised, but there are areas of remnant natural and semi-natural vegetation scattered throughout the catchment. The Eumemmerring Creek, Patterson River, Mordialloc Creek and the Dandenong Creek flow through the catchment into Port Phillip.

The sanctuary is in Tourism Victoria's Melbourne product region. The Melbourne product region receives 40% of all tourist visits to Victoria, comprising 6.7 million domestic overnight visitors, 15 million domestic day visitors, and 1.1 million international overnight visitors (Tourism Victoria 2003).

Port Phillip is Melbourne's most important recreational area and also provides shipping access to one of Australia's busiest seaports. In an area of metropolitan Melbourne that is almost entirely urbanised, and where coastal recreation is popular, the sanctuary is significant for its capacity to protect a range of habitats and associated flora and fauna.

Ricketts Point Marine Sanctuary protects 2.9 km of the coastline and adjacent waters from Fourth St (north of Quiet Corner) to the inlet east of Table Rock Point, and is complemented by the adjacent foreshore reserve and other Marine National Parks and Marine Sanctuaries in Port Phillip, including:

- Point Cooke Marine Sanctuary, approximately 15 km west of Melbourne, represents and protects typical examples of the western shoreline and marine environments of Port Phillip.
- Jawbone Marine Sanctuary at Williamstown, less than 10 km from Melbourne's CBD, is notable for ecological values including the largest occurrence of mangroves in Port Phillip, roosting sites for migratory waders, and algal and faunal communities.
- Port Phillip Heads Marine National Park, at the southern end of Port Phillip, contains some of Victoria's most treasured and diverse marine and coastal environments. This park is made up of six separate sections: Point Lonsdale, Point Nepean, Swan Bay, Mud Islands, Portsea Hole and

Popes Eye. It is accessible from both the Bellarine and Mornington Peninsulas.

2.2 Sanctuary significance and values

Ricketts Point Marine Sanctuary makes a valuable contribution to Victoria's parks system, which aims to protect viable representative samples of the State's natural marine and terrestrial environments. Parks also provide opportunities for visitors to enjoy and appreciate natural and cultural values, and many make important contributions to tourism.

The sanctuary is assigned the International Union for the Conservation of Nature and Natural Resources (IUCN) Category II (National Park) of the United Nation's List of National Parks and Protected Areas. Category II areas are managed primarily for ecosystem protection and recreation.

The sanctuary is a significant feature on the eastern shoreline of Port Phillip and constitutes an important natural attraction encompassing a diversity of habitats and associated flora and fauna in a small, accessible area in a highly urbanised setting.

Important values of the sanctuary are listed below.

Natural values

- High diversity of habitats including rocky sandstone intertidal and subtidal habitats, sandy beaches and subtidal soft substrates in a small area.
- Intertidal reefs that contain a high diversity of Port Phillip invertebrate fauna (Plummer et al. 2003) and support a range of bird species commonly seen in large numbers (MSE 1999).
- Subtidal rocky reefs that support a variety of algal, sponge and fish species.
- Patches of seagrass that provide important habitats for juvenile fish as well as being feeding grounds for sea birds and shore birds.
- Diverse and abundant populations of bryozoans and rare epiphytic hydroids (MSE 1999).
- Hard ferruginous shore platforms of Black Rock sandstone, which are the widest

platforms on the eastern coast of Port Phillip and are regionally significant (Rosengren 1988).

- Partially submerged sea-caves at Table Rock Point, which are regionally significant and a rare geomorphological feature in Port Phillip (Rosengren 1988).

Cultural values

- The reefs at Ricketts Point, which were popular with Indigenous communities for fishing and shellfish gathering.
- A long association of the Traditional Owners with the Beaumaris coastline, which provided a reliable source of food and water.
- Ricketts Point, which has been a popular picnicking and bathing destination since the 1870s.
- A popular location for landscape painting by well-known Australian artists including Heidelberg School artists Tom Roberts, Charles Conder, Arthur Streeton and Frederick McCubbin, as well as local artists such as Clarice Beckett.
- Strong historical associations with the sanctuary area among a number of local environmental and community groups and individuals, including Marine Care, residents of the Beaumaris area and the education and research community.

Recreation and tourism values

- Safe opportunities for swimming, including a lifeguard-patrolled swimming beach at the Beaumaris Life Saving Club.
- Subtidal reefs suitable for recreational activities such as snorkelling, diving and underwater photography.
- Recreational boating and sailing from the Beaumaris Yacht Club and other nearby locations.
- Excellent opportunities for guided marine education and interpretation, school excursions and nature-based tourism.
- Opportunities for recreational activities such as walking and nature observation.

- Opportunities for community involvement, partnerships and participation in management.
- Traditional gathering point for many cultures for relaxation, recreation and leisure pursuits.

2.3 Evidence of past use

Indigenous communities have a long association with the Beaumaris coastline and are known to have inhabited the Port Phillip region for around 40 000 years. Before the sea level rose to flood the large plains of Port Phillip during the last interglacial phase, the Boonwurrung hunted kangaroos and cultivated yam daisies in the area. The ancestors of the Ngaruk Willam clan, one of six clans that made up the Boonwurrung language group, inhabited the Beaumaris area.

The sea provided plentiful food resources, and reliable sources of water could be found along the coast. The Ngaruk Willam clan visited the coastal area around Ricketts Point at Beaumaris to hunt and gather shellfish from the reefs and collect fresh water from rock wells. The Ngaruk Willam clan gathered at Ricketts Point when the men made their spiritual journey to Wilsons Promontory and women journeyed to Point Nepean.

The coastal area of Beaumaris inspired many writers, sculptors and painters. Since the 1880s Melburnians have loved to visit the beaches of Beaumaris. At busy times the sanctuary beaches were covered with parked vehicles. Little evidence remains and most of the bathing boxes that once lined the foreshore have been destroyed by storms, but Ricketts Point has a lasting popularity for recreational activities and a beachside experience. Ricketts Point was also popular for shore and boat-based recreational fishing. The sanctuary was also fished commercially, although commercial fishing had diminished in importance in recent years.

The intertidal reef at Ricketts Point has also been a popular destination for school groups and has been the site for marine education programs run by the Gould League since 1994.

2.4 The sanctuary visitor

Ricketts Point Marine Sanctuary is accessible by private and public transport from the central

and eastern suburbs, and is a popular destination for local residents all year round. It is extremely popular during the warmer months of the year.

As in most bayside beach areas, swimming, walking, exercising dogs and nature observation are popular pursuits. Surface water sports such as kayaking, canoeing, recreational boating and sailing are also popular. The subtidal reefs within and near the sanctuary are frequently used for recreational activities such as snorkelling, diving and underwater photography.

The sanctuary has become the primary site for marine educational activities in Melbourne. Marine interpretive tours and visits by school groups usually take place on the intertidal reefs in the sanctuary on weekdays, particularly during the warmer months.

A strong sense of stewardship for the marine sanctuary exists within the local area, and a very active Friends group, called Marine Care — Ricketts Point, provides many opportunities for people to become involved in the sanctuary's management.

2.5 Legislation and ECC recommendations

Legislation

Ricketts Point Marine Sanctuary is reserved and managed under the provisions of the National Parks Act. The Act requires the Secretary to DSE to preserve and protect the natural condition of the sanctuary and its natural and other features and, subject to this, to provide for the use of the sanctuary by the public for enjoyment, recreation and education. Appropriate research activities are also provided for under the Act.

The National Parks (Park) Regulations 2003 apply to the sanctuary. All forms of extraction, including recreational and commercial fishing, are prohibited within the sanctuary under the National Parks Act. A Statewide Compliance Strategy and a Regional Compliance Plan have been developed in partnership with the Fisheries Victoria – Department of Primary Industries to manage compliance with the no-fishing provisions within the sanctuary (section 8.3).

The objects and provisions of the National Parks Act set the framework for the management of the Ricketts Point Marine Sanctuary (appendix 1). Specific legislation and ECC recommendations accepted by government also govern particular aspects of the management of the sanctuary, as described below and in subsequent sections of the plan.

The *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic.) and the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cwlth) apply to the sanctuary and protect all Aboriginal cultural heritage values including places and objects (section 5.1).

The *Coastal Management Act 1995* (Vic.) applies to use and development of the whole of the sanctuary.

The *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) applies to the whole of the sanctuary with respect to actions that have, will have, or are likely to have a significant impact on matters of national environmental significance.

The *Native Title Act 1993* (Cwlth) applies to the management of the sanctuary.

The *Parks Victoria Act 1998* (Vic.) enables management services for Ricketts Point Marine Sanctuary to be provided by Parks Victoria on behalf of the Secretary to DSE.

ECC recommendations

The former ECC recommended the creation of Ricketts Point Marine Sanctuary for its contribution to representation of the eastern shoreline of Port Phillip Bay, and its potential for public education and enjoyment of marine environments in accordance with the general recommendations for marine sanctuaries.

In addition to its general recommendations, the ECC made specific recommendations (R38A and B) with respect to uses and activities that should be permitted and prohibited in the Marine National Parks and Marine Sanctuaries (ECC 2000).

The Victorian Government also accepted recommendations of the ECC's Marine, Coastal and Estuarine Investigation (Government of Victoria 2002), including the following:

R3 Planning and management relating to traditional interests and uses in coastal marine areas to be based on recognition and respect for the traditional relationship of Aboriginal people with the land and sea.

R13 Further research to be undertaken on biological community composition and structure, both within and external to marine protected areas, with an emphasis on assessing the impacts of harvesting marine fauna.

R14 Assessments to be made and strategies developed for protection of vulnerable or threatened marine species and communities, using the provisions of the *Flora and Fauna Guarantee Act 1988* (Vic.) as appropriate.

R18 Measures to be implemented by responsible agencies to reduce the risk of marine pest species arriving in Victoria, and to ensure a rapid and effective response in the event of an introduction.

R26 Public land and waters continue to be available for a wide range of tourism and recreational uses. Development should not preclude public access to foreshore and offshore areas, other than to meet safety and security requirements that cannot be achieved in other ways.

2.6 Policies and guidelines

The sanctuary is managed in accordance with Parks Victoria's operational policies and, as appropriate, consistent with other relevant policies and guidelines including:

- *Victoria's System of Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003b)
- *Indigenous Partnerships Strategy: Draft for Discussion* (Parks Victoria 2004a)
- *Victoria's Biodiversity Strategy* (NRE 1997b)
- *National Strategy for Ecologically Sustainable Development* (COAG 1992)
- *National Strategy for the Conservation of Australia's Biological Diversity* (ANZECC 2001).

The sanctuary is also managed within the broader context of a number of other plans and strategies including:

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- *Nature Based Tourism—Directions and Opportunities for Victoria 2000–2003* (Tourism Victoria 2000)
 - *Policy for Sustainable Recreation and Tourism on Victoria’s Public Land* (NRE 2002a)
 - *Port Phillip and Western Port Regional Catchment Strategy 2004–2009* (PPWPCMA 2004)
 - *Port Phillip Bay Environmental Management Plan* (NRE 2002b)
 - *Port Phillip Coastal and Marine Planning Program 2000* (ABM 2000)
 - *State Environment Protection Policy, (Waters of Victoria) – Schedule F6 Waters of Port Phillip Bay* (EPA 1997)
 - *Victorian Coastal Strategy* (VCC 2002).

3 STRATEGIC DIRECTIONS

3.1 Sanctuary vision

A future visitor to Ricketts Point Marine Sanctuary finds a sanctuary renowned for the flora and fauna of the rocky sandstone reefs, seagrass beds and sandy beaches, which provide a window into the diverse marine life of eastern Port Phillip.

The sanctuary's long history as a popular place for recreation and bathing continues, and its shores and rock pools provide a safe and accessible place for sustainable educational visitation and tourism activities.

Community education and involvement have created an awareness and understanding of the natural and cultural values of the sanctuary by the local and wider population. The enduring connection between Indigenous people and the sea is valued and all cultural history is conserved and communicated. The sanctuary's picturesque scenery continues to inspire artists.

Wise and respectful use and a harmonious balance between conservation and the impacts of human activities in the sanctuary have been achieved.

Sanctuary management is integrated with the management of the adjacent foreshore and wider catchment, and embodies community aspirations.

The sanctuary is a showpiece for conservation and biodiversity in an urban setting.

3.2 Zoning

A park management zoning scheme is normally used to define areas where various types and levels of use are appropriate. However, management zones do not need to be defined in Marine National Parks and Marine Sanctuaries because the management aims for these areas are clearly outlined in the National Parks Act and are consistent across all Marine National Parks and Marine Sanctuaries (section 2.5 and appendix 1).

In this plan an overlay is used to identify areas with special management requirements. A 'No Boating' sea use designation overlay is used to show management requirements under the *Marine Act 1998* (Vic.) for the existing no boating zone adjacent to the Beaumaris Life

Saving Club. These requirements are summarised in table 1, and the boundary of the no boating zone is shown in figure 2.

3.3 Management directions

Major management directions for the sanctuary are outlined below.

Natural values

- Intertidal reefs will be managed for education while maintaining the feeding and roosting habitat for a range of sea and shore birds commonly seen in high numbers.
- The seagrass areas will be maintained, subject to natural ecological processes.
- Natural processes such as competition, predation, recruitment and disturbance, will be protected to ensure an overall benefit to biodiversity and variety of marine ecological communities.
- Compliance with legislated provisions that prohibit all extractive activities, including fishing, and shellfish collection, will be ensured through education, information, community support, and improved surveillance and enforcement.
- Research and monitoring to improve the scientific basis for management, including baseline data collection, marine habitat mapping and threat assessment, will be undertaken as outlined in the statewide Management Strategy (Parks Victoria 2003b) and through collaborative research links.
- Impacts of changes to water quality will be minimised by seeking the amalgamation or removal of stormwater outfalls and through cooperation with Bayside City Council, Melbourne Water, and the Environment Protection Authority (EPA).
- Other identified threats to the sanctuary will be minimised through ongoing risk assessment and complementary adjacent, coastal and catchment management.

Cultural values conservation

- The Traditional Owners' cultural lore, interests and rights in the waters and land, and aspirations for *Country*, will be reflected in the sanctuary's management, in accordance with legislation and policies.
- Indigenous places and objects will be protected from interference and damaging activities.
- Indigenous cultural lore relating to *Country* will be respected, promoted and interpreted in accordance with the wishes of the Traditional Owners.

The sanctuary visit

- Sustainable use by school and community groups for education about the sanctuary and marine values will be maintained and promoted.
- Visitor enjoyment will be enhanced by appropriate management of recreation activities.
- Visitor understanding and appreciation of the sanctuary's natural and cultural values will be enhanced by the implementation of information, interpretation and education programs.
- Recreation opportunities will be permitted in accordance with table 2.
- Visitors will be encouraged to adopt minimal impact techniques and to adhere to industry-developed standards appropriate to their activity.

- Visitor compliance with legislated provisions will be ensured through education, information, ranger patrols and community support.

Community awareness and involvement

- Friends, volunteers, Indigenous groups and other community groups will be encouraged and supported to participate in areas of sanctuary management that relate to their interests.
- An awareness and understanding of the sanctuary and its management, and a sense of custodianship, will be developed among local communities and visitors.
- Strong relationships will be further developed and maintained with people, groups and communities who have strong connections or interests in the sanctuary as a basis for encouraging their appropriate participation in aspects of the sanctuary's management.
- A strong collaborative relationship will be developed with the Traditional Owners to facilitate the reflection of their cultural lore, interests and rights and aspirations for the sanctuary, in its planning and management.
- There will be ongoing opportunities for individuals, groups, communities and government agencies to discuss aspirations and issues of mutual concern relating to the sanctuary.

TABLE 1 MANAGEMENT OVERLAY

OVERLAY	AREA/LOCATION	VALUES	GENERAL MANAGEMENT AIM
Sea Use Designation No Boating	6 ha, 5.2% of the sanctuary. Waters in Watkins Bay, bounded by a line from 'No Boating' sign on the foreshore approximately 30 m west of the Beaumaris Life Saving Club and extending approximately 150 m to seaward to a yellow buoy, thence by a line extending approximately 400 m in an easterly direction to a yellow buoy, thence by a line extending in a northerly direction to a 'No Boating' sign on the foreshore (figure 2).	Recreational values and opportunities.	Provide for water sports in the gazetted area in accordance with section 15 of the Marine Act.

TABLE 2 SUMMARY OF RECREATIONAL OPPORTUNITIES

ACTIVITY	SANCTUARY	SEA USE DESIGNATION— NO BOATING OVERLAY AREA (5.2% OF SANCTUARY)
Aircraft (including hang-gliding)	N	N
Anchoring	Y	N
Bait collection	N	N
Bird watching	Y	Y
Boat launching (no facilities)	Y (section 6.3)	N
Camping	N	N
Collecting animals, seaweed, shells, rocks and natural driftwood	N	N
Filming and photography	Y	Y
Diving and snorkelling	Y (section 6.4)	Y
Dogs (only on lead in intertidal sandy areas or on vessels)	Y (section 6.6)	Y
Driving or cycling on beaches	N	N
Educational/guided activities	Y (sections 6.1 & 6.7)	Y
Feeding wildlife	N	N
Fires on beaches	N	N
Fishing (all forms)	N	N
Fossil collection	N	N
Horse riding	N	N
Kite boarding/Wind surfing	Y (section 6.3)	N
Licensed tours	Y (section 6.7)	Y
Mooring	N	N
Motorised boating (incl. PWCs/jet-ski)	Y (section 6.3)	N
Nature photography/painting etc. (non-commercial)	Y	Y
Non-motorised boating (incl. canoeing/ kayaking/surf skiing)	Y (section 6.3)	N
Picnicking	Y	Y
Prospecting and metal detecting	N	N
Rock climbing/abseiling	N	N
Rockpool rambling	Y	Y
Sailing	Y (section 6.3)	N
Scenic viewing	Y	Y
Surfing/boogie boarding	Y	N
Swimming	Y	Y
Wake boarding/Water skiing	Y (section 6.3)	N
Walking	Y	Y
Dolphin/seal watching	Y (section 4.4)	Y

KEY

Y Yes, subject to overlay prescriptions and conditions prescribed by legislation, permits or elsewhere in the plan as indicated.

N Not permitted.

4 STRATEGIES FOR NATURAL VALUES CONSERVATION

4.1 Geological and geomorphological features

Fluctuating sea levels associated with glacial and interglacial phases have altered the morphology of the Port Phillip coastline at different times in geological history. The original shoreline of Ricketts Point can be seen inland and just north of Reserve Road as an inland bluff, and dunes and beach sand cover the old shore platform (Rosengren 1988).

During the last interglacial phase about 4000 years ago the sea level was 1 to 2 m above its present level. At that time, coastal processes eroded the cliffs, cutting out the ferruginous shore platforms in the sanctuary that have become exposed after the sea level fell to its present level.

The hard ferruginous platforms of the sanctuary extend 250 m seaward. These are the widest rock platforms on the eastern side of Port Phillip and are of regional significance (Rosengren 1988). The platforms are composed of Black Rock sandstone formed 12 million years ago and consist mainly of quartz sand, calcareous and ferruginous compounds, and contain fossilised animal and plant remains. The outer areas of the shore platform at Ricketts Point are covered by coarse boulder rubble.

A syncline submerges the platform in a north-easterly direction towards Watkins Bay. The platform re-emerges at Table Rock Point on an anticline, demonstrating the influence of anticline–syncline structures in shaping coastal morphology.

The elevated sandstone shore platforms of Table Rock Point feature benches, ledges and small partially submerged sea-caves which are regionally significant and a rare feature in Port Phillip. The cliffs at Table Rock Point form part of the high vertical cliffs of Beaumaris Bay that run along the Beaumaris monocline. The cliffs adjacent to the sanctuary are of international significance for their diverse marine fossils.

The beaches within the sanctuary are Low Tide Terrace, Transverse Bar and Rip beaches with medium to coarse sand (Short 1996). Low Tide Terrace, Transverse Bar and Rip beaches are

the lowest energy types in the intermediate beach category. Seasonal wave conditions, current patterns, and storm energy create a dynamic environment in which there is natural accretion and attrition of beaches, causing sand to cover and uncover the reefs and other habitats. Events such as storms and regular sand accretion and attrition are considered to be ongoing natural processes.

The profile of the cliffs at Quiet Corner was altered when Charles Hotson Ebdon ordered stonecutters to cut sandstone from the cliffs to make a castellated wall for his home, Black Rock House, in the 1850s (Disney & Tarrant 1988).

In the early 1930s the beach and lower areas of the cliff face at Quiet Corner were washed away by severe storms, and a seawall was subsequently built to prevent further erosion. The beaches south of Quiet Corner and at Watkins Bay have been renourished with sand dredged from the bay. Coastal modification, including the construction of sea walls and groynes and beach renourishment in or near the sanctuary (section 7.2), have the potential to adversely affect the geological values of the sanctuary through longshore drift, deposition and erosion.

The flat rock platforms and sandy beaches make the sanctuary a suitable place for school and educational groups to observe geological features and processes (section 6.1).

According to Indigenous tradition, all geomorphological features of the landscape result from the activities of ancestral spirits in the *Dreamtime*.

Aim

- Protect features of geological and geomorphological significance from impacts of human activity.

Management strategies

- *Minimise visitor and management impacts on the partially submerged sea-caves at Table Rock Point.*
- *Thoroughly understand the natural coastal processes before considering any beach renourishment proposals.*

- *Protect geological and landform features by prohibiting the construction or maintenance of sea walls and groynes within the sanctuary.*
- *Work with DSE and Bayside City Council to minimise impacts on the sanctuary of any future coastal modification or beach renourishment of adjacent areas (section 7.2).*
- *Encourage research into geological and landform features within the sanctuary.*
- *Encourage research to identify geomorphological features of special significance to the Traditional Owners and protect them from damaging or inappropriate activities (sections 5.1 and 8.2).*
- *Consider the significance of landforms to the Traditional Owners in interpreting the sanctuary and implementing management actions (sections 4.5, 5.1, 6.1 and 8.2).*

4.2 Catchment and water quality

The Ricketts Point Marine Sanctuary is within the Dandenong Catchment of the Port Phillip and Western Port Catchment Region under the jurisdiction of the Port Phillip and Westernport Catchment Management Authority (section 8.3). The catchment (85 000 ha) is the most urbanised catchment in the Port Phillip and Western Port Catchment Region, with a population of over 1 million people. Over 70% of the catchment area is used for industry or residential living; only 4.7% is used for agricultural purposes. Areas with remnant natural and modified vegetation are isolated and scattered through the catchment. The catchment receives approximately 800 mm of rainfall annually.

Human activities within the catchment have the potential to affect water quality and, consequently, the natural values of the sanctuary. Potentially threatening processes in the catchment include waterway discharge, stormwater runoff, oil and chemical spills and contamination of groundwater. Urbanised areas are extensively covered by impervious surfaces, creating an unnatural amount of runoff. Stormwater systems have been developed to channel the runoff into waterways and the marine environment to minimise the risk of flooding.

These catchment-derived potentially threatening processes can be short-term or long-term, and can deliver pollutants, including sediments and nutrients, micro-organisms, toxic organics, heavy metals, oils and surfactants, as well as litter and debris, into the sanctuary. Pollutants may also enter the sanctuary from onshore and offshore activities in and around the sanctuary.

Port Phillip receives water from a number of significant rivers, including the Yarra and Maribyrnong rivers, which drain catchments supporting agricultural, urban, and industrial land uses. The sanctuary can be indirectly affected by the amalgamated runoff from the Maribyrnong and Yarra rivers in the Maribyrnong and Yarra Catchments. Plumes from the amalgamated Maribyrnong and Yarra rivers flow down the eastern shoreline of the bay after storms, occasionally as far as Table Rock Point, and could increase turbidity and nutrient levels in the sanctuary after severe storms.

Eumemmerring Creek, Patterson River, Mordialloc Creek and Dandenong Creek are the main waterways in the catchment and flow into Port Phillip south of the sanctuary. These waterways have little effect on the sanctuary because of their distance from the sanctuary and favourable water circulation patterns in the bay. Port Phillip also receives water from the Western Treatment Plant. Increased nitrogen loads from this water are unlikely to affect the sanctuary because of the distance of the plant from the sanctuary and recent upgrades which reduced nitrogen loads.

Five stormwater drain outlets discharge into the sanctuary (figure 2). Bayside City Council (section 8.3) manages four of these drains, which collectively drain 255 ha of the local residential area adjoining the foreshore. The *Black Rock – Beaumaris Foreshore Masterplan* (BCC 1999) recommends the amalgamation of stormwater drains where practical and the installation of litter traps to all drainage outlets, while maintaining habitat values and without disturbing any significant roost sites.

The Coral Avenue and Nautilus Street drains join and discharge north of the Beaumaris Yacht Club and are managed by Melbourne Water (section 8.3). They drain a predominantly residential catchment of 183 ha

from the Mentone – Cheltenham area. All stormwater drains within the sanctuary require consent from the Secretary to DSE (section 7.1).

The water quality of stormwater discharging into the sanctuary is managed under the *Stormwater Quality Management Plan* (BCC 2001) and *Operating Charter for Waterways and Drainage* (Melbourne Water 1999) which set out the implementation of the environmental objectives outlined in the *State Environment Protection Policy, (Waters of Victoria) – Schedule F6 Waters of Port Phillip Bay* (EPA 1997).

A sewage pumping station managed by South East Water is located near the sanctuary at the intersection of Fourth Street and Ebdon Street. In the event of an emergency overflow, the pumping station diverts sewage overflow into the sanctuary via a nearby stormwater drain when a set spill point is reached. In the past this has been a less than once in 10 years event. Emergency overflows are managed by South East Water under an emergency response plan (SEW 1995) and in accordance with EPA guidelines (section 7.1).

Under the *Environment Protection Act 1970* (Vic.) littering and the discharge of wastes from vessels is illegal. Litter in the sanctuary may originate from urban areas and be transported through stormwater systems and waterways, discarded from vessels within or near the sanctuary or discarded by visitors to beaches and adjacent areas. Litter within the sanctuary can also be derived from animals, in particular foxes, rats and birds, removing litter from open bins on the foreshore reserve adjacent to the sanctuary. Litter discarded by recreational fishers from vessels or piers near the sanctuary may also enter the sanctuary.

More information about the sources of litter is required to develop targeted preventative programs. Litter accumulating on beaches may cause injury to people and animals, and recirculate into the marine environment. Bayside City Council has previously undertaken mechanical clean up of litter accumulated on beaches below the high water mark to ensure public health and safety.

The *State Environment Protection Policy (Waters of Victoria) – Schedule F6 Waters of Port Phillip Bay* (EPA 1997) (SEPP) requires

operators of vessels to install effective waste containment facilities on board the vessel to avoid the disposal of wastes or sewage from vessels (section 6.3). The EPA monitors water quality in the sanctuary; the results, available on its website, indicate a 94% compliance with SEPP objectives (EPA 2003).

The health of the Ricketts Point Marine Sanctuary and the adjacent local environment can be improved through the implementation of a Neighbourhood Environment Improvement Plan (NEIP). NEIPs are action plans developed in partnership by all parts of the community and administered by EPA under the Environment Protection Act. They are designed to address environmental issues of importance to the community at a local scale and build on and support other efforts to protect Victoria's environment (section 8.3).

The proximity of the sanctuary to shipping lanes for commercial vessels that access the South Channel makes it vulnerable to potential impacts from channel dredging and oil or chemical spills originating from the sea (section 7.2). Responses to marine incidents, in accordance with the *Emergency Management Act 1986* (Vic.), often require a diverse range of skills and resources, involving coordination between multiple agencies including Parks Victoria and members of the community. As the manager of 70% of Victoria's coastal areas, Parks Victoria plays a significant support role in these responses (section 8.3). In Victorian waters the *Victorian Marine Pollution Contingency Plan (VICPLAN)* (MSV 2002a) outlines broad response arrangements to a potential oil or chemical spill.

Aims

- Minimise the impacts of changes to water quality on sanctuary values.
- Minimise the impact of threatening processes from catchment-sourced activities.

Management strategies

- *Liaise with Bayside City Council, Melbourne Water and EPA to minimise the impacts of stormwater drains and achieve water quality levels consistent with SEPP objectives. Seek amalgamation or removal of stormwater drains emptying into the sanctuary and, in the interim, the*

installation of litter traps on all stormwater drains.

- *Seek amendment to Bayside City Council's and Melbourne Water's stormwater management plans to acknowledge the sanctuary and incorporate strategies to protect sanctuary values.*
- *Work with South East Water to seek amendment of the emergency response plan to reflect the presence and values of the sanctuary and minimise the occurrence of emergency sewage overflows from the pumping station (sections 7.1 and 8.3).*
- *Liaise with Bayside City Council to minimise litter within the sanctuary. Support the installation of lids on bins and cigarette butt bins.*
- *Investigate sources of litter within the sanctuary and remove accumulated litter, especially plastic and syringes, from accessible intertidal areas within the sanctuary where necessary to ensure public safety and to protect sanctuary values.*
- *Encourage the participation of community groups in litter investigation and collection programs in the sanctuary, subject to safety considerations.*
- *Permit mechanical beach-cleaning activities below the high water mark only where necessary to ensure public health and safety or as part of an emergency response such as to oil or chemical spills (section 7.1).*
- *Liaise with Melbourne Water concerning the management of nearby waterways to protect and maintain the water quality of the sanctuary.*
- *Liaise with the Port Phillip and Westernport Catchment Management Authority and other relevant organisations on catchment issues that may indirectly influence the water quality of the sanctuary.*
- *Incorporate water quality and catchment issues in interpretation and education programs and liaise with relevant agencies to communicate benefits to the sanctuary in wider community education programs.*

- *Support the development of a Neighbourhood Environment Improvement Plan for the sanctuary and adjacent neighbourhood.*
- *Respond to marine incidents within the sanctuary in accordance with the Emergency Management Act and the Victorian Marine Pollution Contingency Plan (VICPLAN) (MSV 2002a).*

4.3 Hydrodynamics

Despite having a maximum depth of only 5 m, Ricketts Point Marine Sanctuary is exposed to the active and fluctuating hydrodynamic processes of the northern end of Port Phillip.

Wind and tidal forces dominate the circulation of water within the sanctuary. There is little background swell, and when there is no wind the water is calm. In moderate winds the waves are choppy and under 0.5 m, but in strong westerly conditions waves can reach heights of 2 m. The beaches between the Beaumaris Yacht Club and Quiet Corner are exposed to strong south-westerly winds and waves, which create a surf zone. Wave energy is driven by westerly winds, coming from the north-west in winter and south-west in summer. Wind and wave action also influences the beaches, affecting grain size, sand accretion and attrition. Natural hydrodynamic events such as storm surges displace seaweed and kelp communities, erode beaches and deposit sand over the reefs.

Although Port Phillip is a very shallow embayment (maximum depth 24 m) the temperature is very constant, with very little day to day variation. The average surface water temperature in the bay is 21°C in summer and 11°C in winter (Harris et al. 1996).

The sanctuary has an unequal semidiurnal tidal pattern, with a higher and lower flooding and ebbing event daily. The tidal range is less than 1 m and the water in the sanctuary is exchanged every 28–50 tidal cycles.

Because human-induced changes to local hydrodynamic processes could affect the values of the sanctuary, the construction of new infrastructure such as artificial reefs will not be permitted (section 4.1). Natural hydrodynamic events including storms and

regular sand erosion or deposition are considered to be ongoing natural processes.

Aim

- Minimise impacts on sanctuary values from human-induced changes to local hydrodynamic processes.

Management strategies

- *Provide advice on planning applications for developments that could affect sanctuary hydrodynamic processes, where appropriate (section 7.2).*
- *Encourage research into natural and unnatural hydrodynamic processes to increase knowledge and understanding and direct future management of the sanctuary.*

4.4 Habitats and communities

Victoria's system of Marine National Parks and Marine Sanctuaries has been established to protect a comprehensive, adequate and representative example of marine habitats within Victorian waters. Although Ricketts Point Marine Sanctuary is small it supports a considerable diversity of communities and habitats. The most represented habitat is the extensive intertidal and subtidal reef communities, which incorporate many microhabitats. Other habitats within the sanctuary are sandy beaches, subtidal soft sediments, seagrass beds and the water column.

Indigenous people recognise natural values as an intrinsic element of *Country*. Many of the natural values of the sanctuary, including the abundance of birds and marine species are significant in the cultural lore of the Traditional Owners

Intertidal and subtidal reefs occupy 90 ha of the sanctuary. They are areas of high primary productivity. Resident species are adapted to environmental extremes and high wave energy. The composition of species depends on the dynamic processes of competition, predation, recruitment, disturbance and frequency of tidal submergence.

Organisms that can tolerate irregular submergence, including cyanobacteria, algae, lichens, Beaded Glasswort, small gastropods, isopods and amphipods, are found high on the

reefs. Where there is regular submergence it is common to find herbivorous molluscs, anemones, seastars, crustaceans and algae, including large mats of Neptune's Necklace, a brown alga. Reef areas that are generally submerged (including rock pools) support organisms such as limpets, chitons, ascidians, coralline algae and brown algae.

Diverse and abundant populations of bryozoans and rare epiphytic hydroids, some of which are undescribed and not recorded elsewhere in Australia, inhabit the reefs of the sanctuary (MSE 1999). The Swimming Crab and red algae are thought to have their western distributional limit within the sanctuary (Plummer et al. 2003). Water Rats (Rakali) feed on the intertidal platforms, mainly at night.

Common fish of the intertidal reef area include the Tasmanian Blenny, Common Weedfish and Dragonet; and key threatening processes include changes in tidal patterns, marine pests, pollution, trampling (section 6.1), and removal of biota for collection, bait or food.

On the subtidal reefs, green algae and Leather Kelp are particularly abundant, but many other species of algae are present (Hart et al. 2003). Storm damage can cause sudden changes to the species composition and abundance of this algal community. The subtidal reefs also provide habitat for many sessile invertebrates, including the very abundant Common Sea Urchin and Black-lip Abalone (Hart et al. 2003). A diversity of fish species, including Dragonet, Common Threefin, Common Weedfish and Pygmy Leatherjacket, inhabit the subtidal reefs within the sanctuary.

Key threatening processes include altered tidal patterns, marine pests, pollution, sedimentation from dredging, diver damage, and removal of biota for collection, bait or food.

In addition to their recreational and scenic values, intertidal sandy beaches are an important habitat for meiofauna, invertebrates such as amphipods, isopods, molluscs and polychaetes, and are also feeding grounds for fish and sea birds (Plummer et al. 2003). Intertidal sandy beaches, along with other sediment areas, comprise 10 ha of the sanctuary sea floor. Physical factors greatly affect the distribution and composition of organisms found in sandy beaches. Beaches

have natural sea wrack, in the form of seaweed, and other organic material, that is a habitat for invertebrates and a food source for seabirds. It is an intrinsic part of the beach ecosystem, and should not be disturbed or removed in the necessary and desirable process of removing man-made litter or waste from beaches (section 4.2).

Key threatening processes for sandy beaches include bait collection, litter, pollution, oil and chemical spills, removal of vegetation and wrack, and unnatural hydrodynamic changes. Beach cleaning that removes kelp and invertebrates from intertidal sandy beach areas can affect ecological processes and biodiversity (Brown & Lachlan 2002) (section 4.2).

Subtidal soft sediments are diverse and nutrient-rich habitats. The composition of species depends on the grain size and physical structure of the sediment. The spaces between the sand grains provide a habitat for numerous species of small organisms such as nematodes and copepods. Invertebrates such as bivalves, amphipods and polychaetes are associated with the upper layers of the sediment, while large animals such as benthic fish, crabs and seastars are associated with the sediment surface (Plummer et al. 2003). Soft sediment trawl surveys south of Ricketts Point found that there is a diverse fish fauna associated with this habitat (Parry et al. 1995).

Key threatening processes for subtidal soft sediments include mechanical disturbance, changes in sediment deposition patterns including sedimentation from dredging, pollution, and changes to water quality and flow.

Seagrass beds dominated by *Zostera muelleri* and *Zostera tasmanica* cover approximately 1 ha of the sanctuary. They are complex and extremely productive environments that provide habitat, nursery and feeding grounds for a wide range of organisms. Seagrass beds stabilise the sediment and remove dissolved nutrients from the water, forming the basis of the food chain. They provide habitat for epiphytic algae and diatoms, grazing invertebrates such as gastropods and amphipods, and larger animals such as fish, pipefish and crabs. Visitors may be unaware of and unable to recognise exposed seagrass beds as vulnerable habitat.

Key threatening processes for seagrass communities are trampling and disturbance by visitors, dogs and boats, and anchoring, propeller scour, changes in sediment deposition patterns including sedimentation from dredging, pollution, and changes to water quality and flow.

The habitat of the sanctuary is dominated by drifting planktonic species, which rely on currents for movement, nutrients and food. Some intertidal and subtidal organisms spend the early stage of their life in the water column environment and rely on currents to distribute recruits back to intertidal and subtidal habitats. Common pelagic plankton include phytoplankton such as diatoms and zooplankton such as copepods, jellyfish and ctenophores. Common free-swimming animals include squid, bony fish such as Red Snapper and Pilchards, sharks and on occasions marine mammals.

Bottlenose Dolphins are visitors to the sanctuary, and other large mammals may pass through the sanctuary from time to time. All whales and dolphins are protected under the *Wildlife Act 1975* (Vic.) and the *Wildlife (Whale) Regulations 1998* (Vic). Under this legislation the minimum approach distances to whales and dolphins are 30 m for swimmers, divers and surfers and 100 m for recreational and commercial vessels (including PWCs) or anyone using a motorised swimming aid. Vessels that conduct dolphin and whale swimming and watching tours under permit must observe a minimum approach distance of 50 m. A speed limit of 5 knots also applies to all vessels within 300 m of a whale or dolphin.

The *Victorian Cetacean Contingency Plan* (Warneke et al. 1999) details arrangements for incident response. A *Wildlife Response Plan for Oil Spills* (NRE 1997a) guides the rescue and treatment of injured or oiled wildlife.

The sanctuary is recognised as an area of regional significance as roosting sites for terns and cormorants (Garnett et al. 1986), and protects valuable off-shore roosting and feeding habitat for sea birds and shore birds on the eastern side of Port Phillip (MSE 1999; Plummer et al. 2003). The wide reef platforms in the sanctuary provide extensive and sometimes inaccessible roosting and feeding habitat at Ricketts Point, Tea House Reef and Quiet Corner.

A total of 75 bird species are known to inhabit or visit the Ricketts Point area, including nine species listed by international JAMBA and CAMBA agreements or listed under the Flora and Fauna Guarantee Act (Birds Australia Atlas Project Database 2005). Sea birds and shore birds commonly seen in large numbers within the sanctuary include the Pacific Gull, Crested Tern, Pelican and Pied, Little Pied, Little Black and Great Black Cormorants. Migratory and other birds are intermittently seen within the sanctuary in smaller numbers and include the Common Tern, Great Egret, Grey-tailed Tattler, Eastern Curlew and Fairy Tern.

Birds are vulnerable to disturbance from human activities, including annoyance from dogs (section 6.6), boating activities (section 6.3) and rockpool rambling (section 6.5). Disturbance to birds can result in species no longer visiting a site, a decline in species numbers and a low body weight in migratory wader and shore birds.

There is potential for developments on the adjacent foreshore, such as car parking and increasing amenity and security lighting, to adversely effect flora and fauna values.

Most threatened and significant species recorded within the sanctuary are birds. This reflects the current vertebrate focus of threatened species management. Environmental management within the sanctuary takes a habitat-based approach rather than a species-based approach. Management of marine ecological communities within the sanctuary, rather than threatened species, is more likely to lead to a higher level of success in protecting and enhancing threatened species populations. Whole-of-habitat management may also result in the protection of species not yet identified due to their rarity, cryptic nature, or lack of search effort.

All forms of extraction, including recreational and commercial fishing, are prohibited within the sanctuary. Aquaculture and the feeding of animals, including fish and birds, are also not permitted in the sanctuary.

Previous research undertaken in the area that is now the sanctuary has been focused on subtidal reef habitats, reef fish and hydroids. Current research and ongoing monitoring is targeted at collecting baseline biological

information that will be used to understand long-term changes in populations, abundances, community structure and ecological processes, and identify indicator species and habitats in the life of this plan. Research and monitoring will also compare areas outside the sanctuary boundaries with those inside the sanctuary. The results, available on Parks Victoria's website, will allow an assessment of the ecological condition of the sanctuary.

Aims

- Protect communities, habitats, and indigenous flora and fauna from threatening processes.
- Increase knowledge of communities, habitats, flora and fauna to improve management, conservation and appreciation.
- Allow natural processes, including disturbance, recruitment, predation and competition, to occur.

Management strategies

- *Manage visitor activities, including dog walking, boating activities and shore-based activities, to minimise impacts on flora and fauna and communities, particularly in relation to impacts from trampling and compliance with no-take provisions (sections 6.1, 6.3, 6.5, 6.6 and 8.3).*
- *Maintain migratory and shore bird roosting and feeding habitat and sensitive seagrass habitat by prohibiting dogs from the intertidal reefs and seagrass beds and managing visitor impacts, particularly from education and other groups (sections 6.1 and 6.6).*
- *Ensure all sightings of marine flora and fauna are recorded on the Parks Victoria Environmental Information System, DSE statewide databases and Birds Australia's Atlas project database.*
- *Identify and encourage research into key threatening processes and major knowledge gaps.*
- *Undertake regular risk assessment and assess the major threats to habitats and communities, and review management programs as appropriate.*

- *Maintain and support appropriate long-term habitat monitoring program as part of relevant statewide marine habitat monitoring programs.*
- *Work with sea bird and shore bird conservation organisations to support sea bird and shore bird monitoring programs within the sanctuary.*
- *Promote opportunities for community participation in monitoring programs within the sanctuary (section 8.2).*
- *Encourage research into Indigenous cultural lore relating to marine communities and flora and fauna of the sanctuary and ensure that their significance to the Traditional Owners is respected in the sanctuary's management (sections 5.1, 6.1 and 8.2).*
- *Map habitats at scales suitable for management purposes in accordance with statewide habitat mapping programs.*
- *Liaise with Bayside City Council to minimise the impacts of development on the adjacent foreshore on natural values.*
- *Ensure boat operators, and water based recreational users comply with the Wildlife Act, Fisheries Act and Wildlife (Whale) Regulations when observing marine life.*
- *Respond to cetacean incidents in accordance with the Victorian Cetacean Contingency Plan (section 8.3).*

4.5 Landscape and seascape

The landscape and seascape of Ricketts Point Marine Sanctuary have long been admired by visitors and are the subject of many paintings by local and prominent Australian artists.

The landscape and seascape of the sanctuary are intrinsic elements of *Country* of the Traditional Owners. The natural beauty of this protected area and surrounds are the basis of a treasured lifestyle for local residents and an integral part of its attraction for visitors. Divers and snorkellers see the sanctuary as part of an underwater wonderland encompassing a beautiful array of marine life.

The area around the sanctuary features low dunes and moderate cliffs with a modified landscape and remnant coastal vegetation, including stands of banksias, tea-trees and she-

oaks. The water, beaches, prominent headland and rocky platforms are key elements. Unusual rock formations, high cliffs, subtle patterns and colours and an array of underwater colour and diversity are important visual elements.

Landscape setting types are used to broadly characterise different landscape types (VCC 1998a). The sanctuary is within Landscape Setting Type 15 — Urban/Suburban Flatlands and Low Cliffs. The special considerations for this landscape setting type are as follows.

- Vegetation and landform means development can be absorbed beyond the coast proper and sometimes within the coastal environs.
- As development and access pressure is likely to continue to grow, protection of these environs is critical.
- Detailed viewshed studies are needed to ensure critical views to Arthurs Seat and the CBD are maintained and not obscured by building and planting.

Siting and Design Guidelines for the Victorian Coast (VCC 1998b) provide guidelines to assist in the protection of coastal landscape values (section 7.2).

Bayside City Council's planning scheme regulates developments on the adjacent foreshore to protect the sanctuary's landscapes (section 7.2). Coastal developments on the foreshore also require permission from the Secretary to DSE under the Coastal Management Act (section 8.3).

Aims

- Protect landscape and seascape values within the sanctuary in accordance with the *Siting and Design Guidelines for the Victorian Coast*.
- Minimise visual impacts on the seascape and landscape, including management activities, and ensure any future developments are sensitively integrated with their natural settings.

Management strategies

- *Liaise with Bayside City Council to minimise the impacts of management activities on landscape values.*

- *Liaise with Bayside City Council to ensure the recognition of seascape and landscape values associated with the sanctuary (section 7.2).*
- *Consider the significance of landscape to Traditional Owners in planning and implementing management activities, interpretation and education programs (sections 4.1, 5.1, 6.1 and 8.2).*

4.6 Marine pests

Over 100 exotic marine species are known to have become established in Victorian marine waters (Hewitt et al. 1999). Some have become marine pests. Those recorded within the sanctuary include the Northern Pacific Seastar, European Fan Worm, Japanese Kelp (Wakame) and European Green Crab. The potential for further invasions is high.

Marine pests can have a devastating impact on Marine National Parks and Marine Sanctuaries. The introduction of marine pests into Victorian waters is listed as a potentially threatening process on Schedule 3 of the Flora and Fauna Guarantee (FFG) Act. Victoria's management priorities are set out in the relevant FFG Action Statement (NRE 1999a).

Prevention of marine pest invasions is the most effective management option. Prevention involves reducing the risk that a pest will be introduced to the sanctuary. In a very limited number of cases, with specific criteria, control measures may be attempted for established pest populations generally as part of coordinated regional or national response. However, experience elsewhere has shown that proposals to control established marine pests need to consider fully their likely effectiveness. The interconnectedness of the marine environment and the ability of many marine pests to migrate over long distances mean that control measures may be feasible only in limited circumstances. For example, using techniques that are successful on land, such as physical removal by hand, might make the situation worse, as some marine pests regenerate fully from fragments dislodged during removal. Where implemented, control measures will meet national guidelines for managing marine pests. Because of the possibility of misidentifications or exacerbating the pest problem, control measures will need to be part of authorised

programs. In some cases, further research is required into control measures.

Victorian marine pest emergency management arrangements (*Interim Victorian Protocol for Managing Exotic Marine Organism Incursions* NRE 1999b) will form the basis for responding to new introductions and existing incursions of marine pests. The adoption of the *Waste Management Policy (Ships' Ballast Water)* (EPA 2004) for Victorian waters will help reduce the risk of marine pest incursions from ships' ballast water. Emergency responses to marine pest outbreaks in Victoria are managed as part of agreed national arrangements for marine pest emergencies. The Consultative Committee for Introduced Marine Pest Emergencies provides national oversight. Parks Victoria actively supports the protocol, by adopting best practice within the organisation and educating and informing the community about prevention measures.

Vessel cleaning and maintenance guidelines to help prevent the spread of marine pests (DSE 2004) aim to reduce the risk of spreading marine introduced pests by providing practical solutions for vessel operators for cleaning gear and hulls. Supporting initiatives include *Cleaner Marinas: EPA Guidelines for Protecting Victoria's Marinas* (EPA 1998).

Parks Victoria Rangers, Fisheries Victoria Officers, community-based organisations (e.g. dive clubs), and visitors play an important role in the monitoring and early detection of marine introduced pests in the planning area.

Aims

- Minimise the risk of introduction by human activities and subsequent establishment of marine pests in the sanctuary.
- Establish arrangements for the detection of new incursions within the sanctuary in support of Victorian marine pest management arrangements.
- Implement national or Victoria-wide control arrangements as they relate to the sanctuary.

Management strategies

- *Support DSE in educating Parks Victoria staff, Fisheries Victoria officers and the community to identify marine pests.*

- *Ensure that new marine infrastructure within the sanctuary, such as buoys or markers, is cleaned to prevent translocation of marine pests.*
- *Encourage the Friends and community groups such as Reef Watch, researchers, licensed tour operators and contractors to integrate the identification of marine pests into their activities and to report any sightings.*
- *Avoid translocation or new introductions by promoting boat-cleaning protocols for all recreational boats and contractors (section 6.3) in accordance with the DSE brochure 'Aquatic Pests: Treat 'em mean – keep your boat clean'.*
- *Ensure that management vessels operating in the sanctuary are maintained according to Victorian Government boat-cleaning protocols (DSE 2004).*
- *Include boat-cleaning protocols in contracts, licences or permits of contracted vessels, research vessels, and commercial and licensed tour operator vessels operating in the sanctuary.*
- *Manage all pest incursions in accordance with the Interim Victorian Protocol (NRE 1999b) (section 8.3).*
- *Undertake authorised pest programs only where research indicates that control or eradication is feasible and likely to be effective or as part of a coordinated regional or national response.*
- *Ensure that the detection of marine pests is reported in accordance with Victorian pest management arrangements and recorded on Parks Victoria's Environmental Information System and other relevant databases.*
- *Encourage research into marine pests, in particular into the development of control programs and the relationship between marine pests and disturbance.*

5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

5.1 Indigenous cultural heritage

The coast and sea are culturally significant to Indigenous communities. Indigenous communities have a long association with the Beaumaris coastline, which provided a reliable source of food and water. Indigenous people have inhabited the Port Phillip region for around 40 000 years, and kitchen middens along the Beaumaris coast indicate that the Boonwurrung have inhabited the area for at least 6000 years. At the end of the last interglacial phase, about 4000 years ago, the sea level rose to flood the large plains of Port Phillip where the Boonwurrung would have hunted kangaroos and cultivated Yam Daisy.

The ancestors of the Ngaruk Willam clan, one of six clans that made up the Boonwurrung language group, were inhabitants of the Beaumaris area. The Boonwurrung occupied the Port Phillip and Western Port area, from the Werribee River in the west to the Tarwin River in South Gippsland. The Boonwurrung and four other wurrungs (language groups) form the federation group, Kulin Nation, which occupies an area covering most of central Victoria.

The Ngaruk Willam clan frequented the coastal area around Ricketts Point to hunt and gather shellfish from the reefs and collect fresh water from rock wells. The Ngaruk Willam clan gathered at Ricketts Point on their spiritual journey to Wilsons Promontory (for the men) and Point Nepean (for the women).

Kitchen middens along the Beaumaris coast indicate that the area was a significant site to the Ngaruk Willam clan. The clan dug rock wells at Ricketts Point and Quiet Corner to draw fresh water from underground springs that flowed from the dunes at the back of the beach. The sites of these wells are not within the sanctuary.

European settlement and the resulting conflicts, reduction in food resources and introduction of new diseases dramatically reduced the Boonwurrung population. Clans found it difficult to maintain their way of life and in many places were evicted from their land. The Boonwurrung still have strong

connections with the sanctuary and the Ricketts Point area today.

Indigenous tradition indicates that the sanctuary is part of the *Country* of the Boonwurrung people.

All Indigenous places and objects are protected under the Archaeological and Aboriginal Relics Preservation Act and the Aboriginal and Torres Strait Islander Heritage Protection Act. It is an offence to damage, interfere with or endanger an Aboriginal site, place or object without obtaining prior written consent from the scheduled Aboriginal community.

Issues relating to the protection of such cultural heritage and the involvement of the scheduled Aboriginal community are approached in accordance with these Acts. Under the Commonwealth Act, the Victorian Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. is designated as the scheduled local Aboriginal community. There are no known Indigenous places or objects within the sanctuary.

Issues relating to native title are dealt with according to the Native Title Act (section 2.5).

Parks Victoria respects, and seeks to reflect in all aspects of management, Indigenous people's cultural lore, interests and rights in the waters and land, and aspirations for the sanctuary (Parks Victoria 2004a).

Aims

- Protect Indigenous cultural heritage from interference or damaging activities.
- Nurture Indigenous cultural lore relating to the sanctuary.
- Provide opportunities for people to learn about and understand the sanctuary's cultural and spiritual significance to Indigenous people.

Management strategies

- *Protect Indigenous places and objects from disturbance and damage in partnership with the Traditional Owners and in cooperation with the scheduled Aboriginal community and AAV (section 8.2), and in accordance with:*

- *the provisions of relevant legislation including the Archaeological and Aboriginal Relics Preservation Act and Aboriginal and Torres Strait Islander Heritage Protection Act*
- *Parks Victoria's Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites.*
- *Maintain confidentiality in respect of Indigenous cultural lore, places, objects and aspirations, in accordance with the wishes of Traditional Owners (sections 6.1 and 8.2).*
- *Ensure that all management actions are in accordance with the Native Title Act.*
- *Encourage research into the Indigenous cultural heritage relating to the sanctuary, in collaboration with relevant Indigenous communities and in liaison with AAV. Use results to target protection and other management activities.*
- *Respect Indigenous cultural lore and the Traditional Owner's aspirations for Country, and in collaboration with them and the scheduled Aboriginal Community and in accordance with Parks Victoria's operational policies reflect the Traditional Owner's cultural lore and rights in planning and management of the sanctuary (sections 4.1, 4.4, 4.5, 6.1, 7.1 and 8.2).*
- *Assess and identify Indigenous cultural heritage suitable for promotion and interpretation in collaboration with the Traditional Owners and in liaison with AAV (sections 6.1 and 8.2).*

5.2 Maritime and other cultural heritage

During the late 19th century Ricketts Point was called Rickards Point, and later Ricketts Point (Joy 2003). The popularity of Ricketts Point with beachgoers has not diminished over the years. The cliff-tops and beaches of the Beaumaris–Sandringham area have provided inspiration for generations of writers, sculptors and painters, most notably those of the Heidelberg School.

In the 1920s and 1930s the foreshore was lined with bathing boxes, but most were destroyed by storms (Disney & Tarrant 1988). The

Beaumaris Life Saving Club, established in 1956 on the adjacent foreshore in Watkins Bay, still provides life-saving services in summer (section 6.8).

The seawall on the sanctuary boundary at Quiet Corner was constructed by 'sustenance' workers with bluestone from the Old Melbourne Gaol and the St Kilda Courthouse. Some bluestone blocks are from the burial yard of the Old Melbourne Gaol and contain the dates and initials of criminals hanged at the gaol (Disney & Tarrant 1988).

In the past the sanctuary was fished commercially and was popular for shore and boat-based recreational fishing. In the 1860s fishermen lived in huts on the foreshore reserve. Watkins Bay was named after a fisherman, John Watkins, who lived on that part of the foreshore (Joy 2003).

Although there are no known shipwrecks within the sanctuary there are two unlocated shipwrecks, the *Edward* and *Seabreeze*, known to have been lost off Ricketts Point. There are no registered historic heritage places or relics within the sanctuary.

A number of local environmental and community groups and individuals including Marine Care, residents of the Beaumaris area and the education and research community maintain strong historical associations with the sanctuary area. Parks Victoria respects the community's traditional and historical associations with the sanctuary area.

Aim

- Provide opportunities for learning about and understanding the historic and cultural values of the sanctuary.
- Conserve any potential shipwrecks and other historic places, and increase awareness of the cultural significance of the area particularly the local significance.

Management strategies

- *Record, manage and where appropriate interpret any identified cultural heritage places in the sanctuary in accordance with Parks Victoria's operational policies.*
- *Include local historic heritage information in education, information and*

interpretation programs for the sanctuary (section 6.1).

- *Work with local and other communities to improve knowledge about values of significance and reflect appropriate heritage information in education, information and interpretation programs (section 6.1).*
- *Manage any places and values of historic and cultural significance identified in the sanctuary in accordance with the Burra*

Charter of Australia ICOMOS, the provisions of the Heritage Act 1995 (Vic.) and the Historic Shipwrecks Act 1976 (Cwlth), the Parks Victoria and Heritage Victoria Memorandum of Understanding (MOU) and Parks Victoria's Heritage Management Strategy.

- *Liaise with Heritage Victoria to document any shipwreck or other identified historic heritage values and assess the risk to those values. Enter data into Parks Victoria's Asset Management System.*

6 STRATEGIES FOR VISITORS

6.1 Information, interpretation and education

Providing information, interpretation and education can help orientate and inform visitors, increase visitor enjoyment and satisfaction, foster an understanding and appreciation of the sanctuary's special natural and cultural values, build understanding of management activities, and help visitors to experience the sanctuary in a safe and appropriate manner. Parks Victoria delivers information, interpretation and education to visitors by various means, including its website, ranger patrols, Marine Notes, signage, tourism brochures and other publications, displays, and licensed tour operators. These services may be developed and provided in collaboration with other agencies.

Having a representative system of Marine National Parks and Marine Sanctuaries in Victoria presents a unique opportunity to educate visitors and the broader community about the features and benefits of a statewide system of protected areas. At the same time, a range of information, interpretation and education products that are specific to the sanctuary are or will be provided.

Pre-visit information and Marine Notes (available in several languages) for the sanctuary are available from Parks Victoria offices, the Parks Victoria Information Centre and website, and accredited information centres.

Orientation and information, including information signs and regulatory totems for the sanctuary, are located outside the sanctuary at:

- key access points on the adjacent foreshore reserve
- Beaumaris Life Saving Club
- Beaumaris Yacht Club
- Beaumaris Motor Yacht Squadron Club
- Ricketts Point Tea House
- local boat ramps at Half Moon Bay, Mordialloc and Brighton.

The small size and geographical prominence of the sanctuary make it relatively easy to

identify. Yellow on-shore triangles mark where the sanctuary boundary intersects with the coast, and the triangles point toward the Marine Sanctuary. In-water 'Special Marks' (yellow buoys or piles with a yellow cross) define the water boundary of the sanctuary. Special Marks are also used to indicate a special area or feature, the nature of which may be found by consulting a navigational chart; some examples include spoil grounds, pipelines, recreation and pilot buoys and aquaculture reserves (section 7.2). Sanctuary boundaries can also be identified by using a global positioning system (GPS) (section 7.2).

Existing information and interpretive signs for the sanctuary (figure 2) convey information on the sanctuary location, boundaries of the sanctuary, natural values, recreational activities, safety and compliance. Providing further information about other key features of the sanctuary would increase visitors' appreciation and understanding of the sanctuary values.

Because visitors can access the sanctuary through numerous walking tracks or along the beach, providing visitor orientation signage is difficult. Public education is therefore needed to complement other strategies.

The accessibility of the sanctuary allows a large number of visitors to experience a wide range of marine habitat communities found within Port Phillip.

The sanctuary provides an excellent opportunity to educate visitors about the marine environment and the need for its protection. The intertidal rockpools are a very popular destination for many individuals and marine education tours independently led by school and community groups, or by licensed tour operators (section 6.7).

A number of licensed tour operators also offer guided interpretive walks and rockpool rambles as well as nature observation activities and snorkelling. Coast Action/Coastcare offers school holiday, community and summer activity programs within the sanctuary. Off-site classroom interpretation, guided interpretive walks and rockpool rambles in the sanctuary offered by the Gould League have

been part of the League's marine education programs since 1994.

Details of tour operators, including the Gould League, that are licensed (section 7.1) to offer activities within the sanctuary, can be obtained from Parks Victoria's website or the Parks Victoria Information Centre on 13 1963.

Rangers organise interpretive activities for community and school groups on request.

There is potential for the future development of a shared marine interpretation facility within the existing Beaumaris Life Saving Club.

Trampling from rockpool rambling has the potential to threaten sensitive intertidal communities if visitor numbers and activities are not carefully managed (section 6.5). To help manage these activities, Parks Victoria, in partnership with providers of education, has developed Minimal Impact Guidelines (available on the Parks Victoria website, 'www.parkweb.vic.gov.au'). Parks Victoria is working with the Department of Education to encourage schools to notify Parks Victoria (on 13 1963) of any intended school group visits. Prior notification will allow teachers to obtain relevant education materials and advice on suitable sites, and will enable Parks Victoria to monitor the number and timing of visits.

Aims

- Promote and encourage visitors' discovery, enjoyment and appreciation of the sanctuary's natural, recreational and cultural values in a safe and sustainable manner through information, education and interpretation.
- Provide and support high-quality interpretation and education opportunities, appropriate to the range of user groups.

Management strategies

- *Maintain visitor information, interpretation and educational material appropriate to the sanctuary and raise the profile of the sanctuary among the local and wider community (section 7.1).*
- *Liaise with Bayside City Council in the development of integrated signage, and visitor information, interpretation and educational material.*

- *Develop and deliver interpretation themes related to the sanctuary's geological significance, water quality and catchment issues, diverse habitats and marine flora and fauna communities, Indigenous and local cultural heritage, recreational history and management practices to promote protection and foster appreciation by visitors (sections 4.1, 4.2, 4.4, 5.1 and 5.2).*
- *Liaise with educational organisations, other agencies, community and Friends groups and licensed tour operators to:*
 - *coordinate educational activities*
 - *develop a communication strategy for education, community and licensed tour operator activities*
 - *ensure delivery of coordinated and consistent messages about key management strategies and interpretive themes.*
- *Continue to allow sustainable educational use by school and community groups including the Gould League, ensure groups adopt the minimal impact guidelines and encourage dispersed use of suitable areas, namely the intertidal reefs:*
 - *at Ricketts Point*
 - *between Surf Ave and the Beaumaris Yacht Club*
 - *in Watkins Bay.*
- *Promote the need for schools to notify Parks Victoria (on 13 1963) of any intended school group visits.*
- *Support the investigation of the need for and feasibility of a shared marine interpretation facility within the existing Beaumaris Life Saving Club.*
- *Undertake standardised monitoring of impacts of trampling on intertidal reefs from educational use and review the effectiveness of management measures. If impacts increase, work with users to develop an appropriate carrying capacity for the reefs and consider limiting or reducing annual visitation numbers.*
- *Promote greater public understanding, and appreciation of, and respect for, Indigenous culture by incorporating*

information about Indigenous cultural lore, places and objects in information, interpretation and education programs, in collaboration and accordance with the wishes of the Traditional Owners (sections 5.1 and 8.2).

- *Provide appropriate opportunities and support relevant Indigenous communities to participate in the interpretation of Indigenous cultural heritage relating to the planning area with the agreement of the Traditional Owners (section 8.2).*
- *Promote opportunities for education and interpretation programs through facilitating partnership arrangements with providers of marine education programs.*
- *Regularly evaluate information and interpretive programs and success in communicating key themes and management practices.*

6.2 Access

The sanctuary is readily accessible from the eastern suburbs of Melbourne. There is easy access to the sanctuary (figure 2) via a well-planned network of paths and stairs, including an access ramp for visitor with disabilities. Car parking areas on the adjacent foreshore are managed by Bayside City Council in accordance with the *Bayside Coastal Strategy* (1997) (section 7.2). The northern car park was recently resurfaced and has excellent visitor facilities, including a disabled access ramp. The southern car park is unstructured and unsurfaced and during peak periods car and coach parking can be limited. There is potential for overcrowding and impacts on the sanctuary from runoff. Access to the intertidal reef platforms is limited by the tides; rockpool rambling is best during low tide.

There are no boat-launching facilities within the sanctuary. Boat access is from nearby boat ramps at Half Moon Bay, Mordialloc, Patterson River, the Beaumaris Motor Yacht Squadron Club and many other locations. The Beaumaris Yacht Club launches small sailing vessels on trolleys and rescue vessels using a winch from their clubhouse adjacent to the sanctuary. Other small vessels, including canoes, sea kayaks, sailboards and small sailboats, are also launched from beaches by hand. The subtidal reefs and shallow depth of

the water around Table Rock Point and Ricketts Point limit access for larger vessels (section 6.3).

Aim

- Ensure that access to the sanctuary is appropriate and safe.

Management strategies

- *Liaise with Bayside City Council in the management of access points to improve the sense of arrival in the sanctuary, present consistent messages, maintain access for people with limited mobility and minimise the impact of access on the natural and cultural values of the sanctuary.*
- *Liaise with Bayside City Council in the management of car and bus parking areas to improve the sanctuary visitors' experience and to minimise the impact of access on the natural and cultural values of the sanctuary.*
- *Work with the managers of local boat ramps to provide advice about the planning and use of adjacent boat ramp facilities.*

6.3 Recreational boating and surface water sports

Many types of motorised and non-motorised boating activities occur within the sanctuary. Sea kayaking and canoeing are becoming more popular and are frequently in the sanctuary in low numbers. Wind surfing is popular when there is a westerly wind, and in a big swell the sanctuary can occasionally be surfed. Kite boarding occurs in the sanctuary in low numbers on a south easterly wind although these conditions rarely occur during summer. The trees, rocky cliffs, and intertidal platforms make kite boarding in the sanctuary hazardous.

Fishing is popular in the waters outside the sanctuary, and motorised boats often pass through the sanctuary en route to fishing locations. Scuba diving also brings motorised boats into the sanctuary (section 6.4). Personal water craft (PWCs) are seen in the sanctuary in the warmer months. Water skiing may occur in the sanctuary in accordance with the Marine Act, but is not common.

The sanctuary's waters are often used for sailing particularly in conjunction with Beaumaris Yacht Club activities. For special events such as yacht races, the Beaumaris Yacht Club may need to mark out courses using temporarily markers and buoys.

Marine Safety Victoria determines boating safety rules to establish speed limits, operating zones and conditions which are gazetted in the 'Vessel Operating and Zoning Rules for Victorian Waters'. Parks Victoria is responsible for the management of port infrastructure and recreational boating, including navigational aids in Port Phillip, under the *Port Services Act 1995* (Vic.) (section 7.2). There are three navigational aids to ensure safe navigation by vessels in the sanctuary. All boating activities, including kayaking and canoeing, are subject to the Marine Act. Under the Act, a 5 knot speed limit applies to boats within 200 m of the water's edge and 50 m of a swimmer or bather. To provide for bather safety, a no boating zone adjacent to the Beaumaris Life Saving Club subject to the Marine Act (figure 2) prohibits the operation of all vessels except vessels engaged in search and rescue or enforcement operations. Although conditions in the sanctuary are suitable for recreational boating, they can change quickly and create a safety hazard (section 6.8).

Where conditions are suitable for boating, vessels generally have minimal impact on the sanctuary's values, but vessels operated in shallow areas, particularly around shallow reefs areas and seagrass beds, can damage the seabed through vessel groundings and propeller scarring. Propeller scarring has the potential to fragment seagrass beds, resulting in habitat loss, decreased productivity, and the possibility for further erosion and degradation (section 4.4). Anchoring also has the potential to damage the seafloor, especially sensitive seagrass areas; vessel operators should avoid anchoring over seagrass and reef areas to minimise damage to these areas. Private moorings within the sanctuary will not be permitted.

Motorised, wind and sail powered vessels (including wind surfers and kite boarders) can disturb roosting and feeding birds and marine mammals (section 4.4) through excessive vessel noise and fast movement. The landing

of boats, including sea kayaks or canoes, and launching of kite and windsurfers can threaten sensitive areas such as seagrass through trampling. Vessels can also conflict with other users of the sanctuary, including, snorkellers and divers (section 6.8) and swimmers in the intertidal area (section 6.5).

Boats can introduce marine pests if boat-cleaning protocols are not followed (section 4.6) and fuel leaks, oil spills and the disposal of wastes or sewage could have a significant impact on water quality (section 4.2) and flora and fauna (section 4.4). State Environment Protection Policies prohibit vessel operators from discharging sewage, oil, garbage, sediment, litter or other wastes to surface waters in any Victorian State waters. While the EPA has primary responsibility for pollution management, Parks Victoria supports the provision of waste-receiving and pump-out facilities at marinas, ports, and other suitable sites (section 4.2).

Parks Victoria, Victoria Police and Fisheries Officers from Fisheries Victoria—Department of Primary Industries undertake regular water-based patrols and have contact with recreational boat users. Patrols offer an opportunity for boat users to learn about the sanctuary.

Aim

- Provide for a range of boating and water sport activities while minimising impacts on the sanctuary's natural values.

Management strategies

- *Permit boating and surface water sports in the sanctuary in accordance with table 2 and the 5 knot speed restriction within 200 m of the shore, and excluding the 'no boating' zone (figure 2).*
- *Require vessel operators including canoeists to avoid roosting areas and seagrass beds to prevent damage to the seabed and bottom vegetation when launching or landing vessels.*
- *Permit anchoring within the sanctuary, and encourage vessel operators to avoid anchoring over seagrass and reef areas to minimise damage to these areas when anchoring or weighing anchor.*

- *Monitor impacts on natural values from anchoring and if necessary take appropriate action to reduce impacts.*
- *Do not permit private moorings in the sanctuary.*
- *Monitor all boating interactions with sensitive values such as bird and seagrass populations to ensure that they do not impact adversely on those values. If necessary manage the activity to minimise impacts.*
- *Recommend kite boarding in the sanctuary by advanced kite boarders only.*
- *Maintain navigation aids where necessary to provide for the safe navigation of the sanctuary by all vessels.*
- *Continue to permit Beaumaris Yacht Club to use temporary markers and buoys to mark courses for their activities subject to an event permit to minimise impacts on the sanctuary in accordance with Parks Victoria's operational guidelines.*
- *Liaise with recreational vessel operators, particularly during patrols, to:*
 - *promote safe and sustainable use*
 - *raise awareness of boat cleaning protocols (section 4.6).*

6.4 Diving and snorkelling

There are several excellent diving sites within the sanctuary, easily accessed from the shore or by boat. A series of offshore reefs along the seaward sanctuary boundary, particularly in the northern end of the sanctuary, offer excellent diving. The intertidal reefs around Ricketts Point and Table Rock Point are popular for snorkelling at high tide. The sanctuary is also used by some school groups for snorkel diving training, and by Reef Watch volunteers (section 8.2) because of its natural values and ease of access.

Scuba diving and snorkelling in the sanctuary can also be undertaken with licensed tour operators (section 6.7).

Divers and snorkellers need to be aware of potential dangers, particularly from vessels passing through the sanctuary near dive sites (section 6.8). Under the Marine Act scuba divers must dive with a flag indicating a diver

below. Snorkellers are advised to display a flag indicating a diver below when snorkelling to increase their visibility and safety (section 6.1).

Current levels of diving and snorkelling are moderate, but are likely to increase as the sanctuary becomes more widely known. The dynamic nature of sand accretion and attrition which covers and uncovers the reef, repetitive damage to the same area and maintenance issues make an underwater diving or snorkelling trail unsuitable for the sanctuary. Fixed structures that define an underwater trail will not be allowed. The provision of off-site information for divers and snorkellers is preferable and will be encouraged.

Potential impacts from diving include intertidal trampling, wildlife disturbance and illegal removal of flora and fauna, and anchor damage (section 6.3). Educating divers and snorkellers about minimal impact practices and encouraging compliance codes of practice will minimise adverse impacts and assist with sanctuary management. Divers should refer to the Dive Industry Victoria Association (DIVA) *Code of Practice for Commercial Providers of Recreational Snorkelling & Scuba Diving Services in Victoria* (DIVA 2004) or the Scuba Divers Federation of Victoria (SDFV) *Codes of Practice, General operating guidelines for recreational scuba diving and related activities* (SDFV 2005). Snorkellers should refer to the Outdoor Recreation Centre – Victoria Inc. *Adventure Activity Standard: Snorkelling, Scuba Diving and Wildlife Swims* (ORC 2004 at www.orc.org.au).

Aim

- Provide opportunities for diving and snorkelling at dispersed locations in the sanctuary.

Management strategies

- *Permit recreational, educational and licensed tour operator diving and snorkelling activities at dispersed locations in the sanctuary. Encourage use of Watkins Bay where risk from boat users is reduced and away from seagrass areas and the seaward part of Ricketts Point to minimise impacts on sensitive natural values.*

- *Promote the use of clean diving equipment to prevent the translocation of marine pests (section 4.6).*
- *Review impacts from diving and snorkelling and the effectiveness of management measures and take appropriate action to reduce impacts.*
- *Integrate minimal impact messages into existing information, interpretation and education programs (section 6.1).*
- *Require divers and snorkellers to enter the sanctuary from sandy beaches and avoid sensitive reef and seagrass areas especially at Quiet Corner, Tea House Reef and Middle Reef.*
- *Promote compliance of snorkellers and recreational scuba divers with relevant codes of practice and Adventure Activity Standards.*
- *Support dive clubs and industry representatives to develop a code of practice that promotes environmentally responsible diving practices.*

6.5 Swimming and shore-based activities

The intertidal area of the sanctuary has long been popular for shore-based activities. The sandy beaches of the sanctuary are popular for swimming, relaxing, playing, sunbaking, artistic activities, nature observation and walking. The swimming beach at Watkins Bay (figure 2) is patrolled by lifeguards on public holidays and weekends from December to Easter (section 6.8). Vessels have the potential to be a danger to swimmers in the intertidal area (section 6.8).

At low tide a large area of the intertidal reef at Ricketts Point is accessible to visitors and is frequently used for rockpool rambles and general nature observation by individuals and families, and especially by groups, schools and educational marine tours run by Licensed Tour Operators (section 6.1). Intensive trampling of the intertidal reef from a large number of visitors and groups walking on the reefs and undertaking rockpool rambles could lead to significant damage to fauna and flora, and in some sites a reduction in biodiversity and reef habitats (Povey & Keogh 1991) (section 4.4).

Visitors, groups, schools and educational marine tours should adopt sustainable/minimal impact practices while walking on the reefs and undertaking rockpool rambles. Minimal Impact Guidelines developed by Park Victoria (available on its website) provide information on minimal impact practices for visitors and school groups. Visitors to the intertidal reefs also have the potential to disturb roosting and feeding sea birds and shore birds (section 4.4).

The accessible intertidal areas of the sanctuary will be mechanically cleaned and rubbish will be removed when required (section 4.2).

The intertidal collection of living or dead organisms and natural driftwood is prohibited within the sanctuary (section 4.4).

The lighting of fires within Marine National Parks and Marine Sanctuaries, including any beaches or islands, is not permitted except on board a vessel that is seaward of the mean high water mark.

Aim

- Provide opportunities for appropriate shore-based recreation within the sanctuary while minimising impacts on the natural values.

Management strategies

- *Permit shore-based recreational activities in accordance with table 2.*
- *Manage shore-based activities to reduce impacts on the natural values and minimise damage associated with trampling by:*
 - *voluntary protocols (e.g. booking systems) for visitors, educational institutions and other organised groups*
 - *ensuring tour operators meet permit conditions*
 - *undertaking regular patrols during popular periods and times to encourage appropriate visitor use.*
- *Encourage all visitors to the sanctuary, particularly education, school and other groups, including the Gould League, to comply with Parks Victoria's Minimal Impact Guidelines.*

- *Reduce impacts on natural values, particularly from trampling during educational use by school and other groups, including the Gould League, by ensuring that:*
 - *students are adequately supervised while in the sanctuary*
 - *school group sizes do not exceed class sizes (maximum 30 participants per leader)*
 - *formal interpretation and other groups do not exceed 25 participants per leader*
 - *groups are encouraged to disperse over the suitable intertidal reef areas especially at Ricketts Point, and vary the locations to reduce pressure, especially during high use periods*
 - *groups are encouraged to use areas outside the sanctuary or off-site marine education and interpretation.*
- *Minimise disturbance to sea and shore birds by encouraging visitors to avoid sea bird and shore bird roosting and feeding habitats.*
- *Encourage research into the impacts of intertidal trampling on intertidal communities at Ricketts Point and other reefs in the sanctuary with a view to determining an appropriate carrying capacity for the site.*
- *Integrate minimal impact messages for intertidal areas into existing information, interpretation and education programs and promote greater appreciation of intertidal marine organisms (section 6.1).*

6.6 Dogs

Many local residents and other visitors enjoy walking and exercising their dogs on the beaches in the sanctuary. Dog walking (both on and off-lead) was permitted on beaches in the sanctuary in specified areas at specified times prior to the proclamation of the sanctuary (as described for adjacent areas below).

The sanctuary is recognised as an area of regional significance as roosting sites for terns and cormorants (Garnett et al. 1986), and protects valuable off-shore roosting and

feeding habitat for sea and shore birds on the eastern side of Port Phillip (Plummer et al. 2003) (section 4.4).

Dogs can have serious impacts on bird populations and other wildlife (Kirby et al. 1993). Their presence, scent and noise may disturb birds and prevent roosting and feeding, leading to reduced species numbers, lower numbers of returning birds and low weight in migratory birds. Access through seagrass beds by dogs and walkers at low tide can lead to visible damage. Some visitors, particularly small children, may be annoyed or intimidated by unrestrained dogs. Droppings are a potential source of pollution. It is an offence for a dog to harass or injure people or wildlife under the *Domestic (Feral and Nuisance) Animals Act 1994* (Vic.) and the *Wildlife Act*.

Dogs are considered incompatible with the aims and objectives of areas managed under the *National Parks Act* such as the sanctuary. They are generally prohibited from these areas, except on vessels. However, a number of parks have areas set aside to allow dog walking provided dogs are leashed, under control, and restrained from causing annoyance to people and wildlife or damage to property.

On the foreshore adjoining the sanctuary, which is managed by Bayside City Council, dogs are allowed on the beach area above high tide only as follows:

- off-lead on all sand and rock areas from 1 April to 31 October
- on a lead on all sand and rock areas between the hours of 7.30 pm and 10.00 am from 1 November to 31 March, except between Haydens Road and Quiet Corner and between Ricketts Point South and Dalgetty Road, where dogs are permitted off-lead from 7.30 pm to 10.00 am.

Dogs on-lead are permitted on other local beaches managed by Bayside City Council from 7.30 pm to 10.00 am in summer. Nearby areas where dogs can be exercised off-lead include:

- Donald McDonald Reserve in Fourth Street, Black Rock
- Banksia Reserve in Tramway Parade, Beaumaris

- the sand and rock areas between Royal Avenue and the Red Bluff Cliffs, Sandringham, from 7.30 pm to 10.00 am from 1 November to 31 March
- all other beach sand and rock areas managed by Bayside City Council from 1 April to 31 October
- all sand and rock areas of the foreshore between Charman Road and Plummer Road, Mentone (managed by City of Kingston) from 7.30 pm to 10.00 am from 1 November to 31 March.

Aims

- Provide opportunities for walking dogs in the sanctuary where compatible with the protection of natural values.
- Minimise conflicts with other visitors and impacts on sanctuary values from dogs.

Management strategies

- *Continue to permit walking and exercising of dogs in the sanctuary from 1 April to 31 October, and from 7.30 pm to 10.00 am from 1 November to 31 March, provided they are:*
 - *on a lead*
 - *on sandy intertidal beach areas, including adjacent sandy areas with shallow waters.*
- *Allow dogs in the sanctuary if confined to a vessel.*
- *Exclude dogs from the sanctuary (except those confined to a vessel):*
 - *from 10.00 am to 7.30 pm from 1 November to 31 March (as for existing adjacent foreshore dog access arrangements)*
 - *from the intertidal reef and seagrass beds at all times to protect roosting and feeding migratory and resident shore bird and sensitive nursery habitats.*
- *Require people in charge of dogs to remove faeces left by their dog from the sanctuary.*
- *Provide information to visitors regarding dog access and regulations through*

Marine Notes, information signs and ranger patrols (section 6.1).

- *Liaise with Bayside City Council to encourage an integrated approach to dog management in the adjacent foreshore reserve.*

6.7 Tourism services

Licensed tour operators have an important role in facilitating access to the sanctuary for visitors who may not otherwise have the opportunity, in promoting sanctuary values and appropriate use, and in encouraging tourism and recreation. At present three licensed tour operators offer activities within the sanctuary, including snorkelling and diving (section 6.4), education (section 6.1), wildlife viewing (section 4.4) and coastal walking.

Activities by licensed tour operators are managed under a permit system, and include access, safety regulations, permitted activities and site-specific restrictions in accordance with the National Parks Act and the *Policy for Sustainable Recreation and Tourism on Public Land* (NRE 2002a).

Tourism Alliance Victoria is a membership-based industry association that provides a representative and professional development role for tourism businesses. Parks Victoria works collaboratively with Tourism Alliance Victoria in administering the tour operator licensing system across Victoria's public land estate, including the sanctuary.

Aim

- Provide opportunities for and encourage provision of external tourism services while minimising impacts on the natural and cultural values of the sanctuary.

Management strategies

- *Ensure that tour operators comply with permit conditions, Parks Victoria's Minimal Impact Guidelines and relevant Adventure Activity Standards.*
- *Ensure licensed tour operators provide a range of appropriate activities for an appropriate number of visitors, and at recommended, dispersed sites (sections 6.1 and 6.4), that are compatible with the protection of sanctuary values.*

- *Ensure that all licensed tour operators working in the sanctuary have appropriate training and accreditation.*
- *Work collaboratively with licensed tour operators and Tourism Alliance Victoria to ensure:*
 - *the provision of a high-quality service*
 - *that tour operator activities are based on minimal impact practices*
 - *that information conveyed to visitors on tours is consistent with the management objectives for the sanctuary.*
- *Encourage licensed Indigenous tour operators to enhance the tourism experience in the sanctuary by developing and delivering interpretive and educational tours on Indigenous culture and history.*

6.8 Public safety

Some activities undertaken in the natural environment can pose inherent risks to visitors, particularly if they are not familiar with local conditions. Although some sites in the sanctuary may appear inviting for water sports, the presence of rocks, gutters, rips and high wave energy can make conditions dangerous. Slippery rocks, unstable cliffs, broken glass and rubbish, venomous fauna and large waves are potential dangers for land-based activities or intertidal rock rambling. Visitors need to be aware of safety risks to ensure that they enjoy a safe visit.

Vessels can be a potential risk to swimmers, snorkellers and scuba divers and vessel operators need to be aware of their presence in the water. Scuba divers must dive with a flag indicating a diver below, snorkellers should also adopt this practice when snorkelling to increase their visibility and safety. Public information and education programs are one of the most effective ways to promote safety (section 6.1). Safety messages are presented to visitors through signs, Marine Notes and ranger patrols.

A survey of all Victoria's beaches in 1996 rated their safety as being in one of four hazard categories: safest, moderately safe, low safety and least safe. Beaches in the sanctuary were given a 'safest' rating (Short 1996). However,

the only patrolled swimming area within the sanctuary is adjacent to the clubhouse in Watkins Bay (figure 2). The Beaumaris Life Saving Club patrols this swimming beach on weekends and public holidays from December to Easter.

All powered recreational vessel operators in State waters are required to have a current licence. Recreational boating accidents are highest in Victoria during summer, and most fatalities are associated with recreational vessels less than 8 meters (Bugeja 2003). Marine Safety Victoria conducts safety and awareness programs for recreational boat users, and the *Victorian Recreational Boating Safety Handbook* contains necessary safety information and outlines the requirements for operating a recreational vessel in Victoria (MSV 2002b) (section 6.3).

Parks Victoria is not the lead agency for most emergency response situations, but provides a support role for emergency incidents where required.

Relevant agencies respond to incidents within the sanctuary in accordance with the Municipal Emergency Response Plan. Parks Victoria's response to emergency incidents during normal operating activities within the sanctuary is guided by the *Northern Port Phillip Emergency Management Plan* (Parks Victoria 2004b).

Under the *Port Services Act 1995* (Vic.) Parks Victoria is the Local Port Manager of Port Phillip and has produced a Safety and Environment Management Plan (SEMPs) for the port. The SEMP is a risk management framework for managing the safety and environment of the port.

Aims

- Promote visitor safety and awareness of safety issues and risks within the sanctuary associated with access and use.
- Promote and observe safe practices, and cooperate with emergency services.

Management strategies

- *Liaise with Bayside City Council to ensure that hazard warning signs along the foreshore are maintained.*

- *Support the Beaumaris Life Saving Club's provision of a patrolled swimming beach during summer.*
- *Provide relevant visitor safety information (section 6.1) and encourage visitors to adopt safe operating guidelines appropriate to their activity.*
- *Develop an Emergency Management Plan for the sanctuary and ensure that staff and licensed tour operators are aware of the plan.*
- *Cooperate with and support responsible agencies in emergency response and ensure that Parks Victoria staff have adequate levels of training in emergency procedures.*
- *Liaise with Bayside City Council to ensure that the Municipal Emergency Response Plan makes adequate provision for likely incidents in the sanctuary.*

7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

7.1 Authorised uses

A number of uses and activities may be permitted in the sanctuary subject to specified conditions to minimise impacts.

Melbourne Water and Bayside City Council manage a number of stormwater drains that discharge into the sanctuary. Emergency sewage overflows from a nearby sewage pumping station diverts into the sanctuary via one of the stormwater drains.

Parks Victoria recognises the significant role that filming and photography industry plays in the social and economic well-being of the community, and in providing for such activities seeks to ensure protection of the natural and cultural values of the sanctuary. This is achieved through a permit system for all filming and photography conducted as part of a trade or a business. Amateur photographers or people taking film or video for personal or hobby interest do not require a permit.

All research and monitoring planned for a Marine National Park or Marine Sanctuary by external partners or individuals requires a research permit under the National Parks Act. Permits are issued by DSE and can be accessed at DSE's website.

Adventure training and field navigation exercises by Defence Force units may be undertaken subject to a permit outlining conditions to ensure minimal impacts on the sanctuary.

Petroleum extraction, exploratory drilling, mineral exploration and mining, and invasive searching for or extraction of stone and other materials, are prohibited in the sanctuary under the National Parks Act. Petroleum exploration such as remote testing that is carried out in a manner which does not detrimentally affect the sanctuary may be allowed with the consent of the Minister. However the Government has announced that it will not release any areas (acreages) that contain Marine National Parks or Marine Sanctuaries for petroleum exploration.

The construction of pipelines or seafloor cables may be permitted with the consent of the Minister in some circumstances.

Aim

- Manage authorised uses and permitted activities in accordance with the National Parks Act and minimise their impact on sanctuary values.

Management strategies

- *Review all uses of the sanctuary to identify those that do not conform with objectives of the National Parks Act, including private uses and public service activities. Allow uses to continue only in accordance with authorisations that are consistent with legislation and include conditions that effectively minimise the impacts of uses on the sanctuary.*
- *Seek consent from the Secretary to DSE for all existing stormwater drains, emergency outfalls from the nearby sewage pumping station and mechanical cleanup of the sanctuary beaches. Include conditions to ensure the operation and maintenance are consistent with the protection of the sanctuary's natural and cultural values and amenity of visitors.*
- *Permit authorised uses in accordance with Parks Victoria's operational policy and relevant conditions, and monitor authorised activities to ensure conditions are met. Assess the effectiveness of conditions of authorisations in protecting the sanctuary and seek review of authorisations if necessary to mitigate impacts.*
- *Permit Defence Force adventure training or field navigation exercises in the sanctuary in accordance with Parks Victoria's operational policy and relevant permit conditions.*

7.2 Boundaries and adjacent uses

The boundaries of the sanctuary are adequately marked and highly visible from both land and sea (figure 2). The on-shore signs at either end of the sanctuary are yellow triangular signs pointing towards the sanctuary. A series of in-water pile markers with a yellow cross and yellow buoys marks the seaward boundary (section 6.1). Boundary coordinates are published on Parks Victoria's website and in Marine Notes and will be added to navigational charts. Information signs are located on the adjacent foreshore reserve, and regulatory totems are located in the reserve at the main access points.

State waters and the underlying seabed adjoining the sanctuary are currently unreserved Crown land. The Government accepted the ECC's recommendation that a Coastal Waters Reserve be established under the Crown Land (Reserves) Act for the major portion of Victoria's marine area not otherwise designated for a particular purpose, to provide for a diverse range of activities that are compatible with long-term sustainable use (ECC 2000).

The ECC recommended that the adjacent coastal area be zoned primarily as Coastal Protection and partly Coastal Recreation Zone (ECC 2000) as indicated in the Victorian Coastal Strategy (VCC 2002).

The foreshore reserve adjacent to the sanctuary is reserved under the *Crown Land (Reserves) Act 1978* (Vic.) and is managed for recreation and conservation by Bayside City Council as the committee of management. The *Bayside Coastal Strategy* (BCC 1997) gives broad direction in the management of the foreshore reserve. The *Black Rock – Beaumaris Foreshore Masterplan* (BCC 1999) builds on the Bayside Coastal Strategy and outlines coastal issues and proposed actions in detail.

Occupancies of the foreshore reserve include the Ricketts Point Tea House, the Beaumaris Life Saving Club, the Beaumaris Yacht Club, the Beaumaris Sea Scouts and a number privately owned beach boxes.

The foreshore reserve provides good access to the sanctuary and visitor facilities such as toilets, picnic facilities and car parking. The foreshore reserve is a modified environment

with areas of semi-natural vegetation, including groves of coastal banksias. The bluffs and cliff tops have walking and bicycle tracks and the Coastal Art walking trail, which features copies of artworks painted in the area by notable Australian artists.

In response to broad community support for and recognition of Indigenous people, Bayside City Council has recognised the need to develop and promote an Indigenous cultural heritage trail along the municipality's coast. The trail will complement the existing Coastal Art Trail running from Brighton to Beaumaris and will recognise the Indigenous heritage of the area.

The *Bayside Planning Scheme* (BCC 2002) provides a statutory framework for managing proposals and developments adjoining the sanctuary. Administered by Bayside City Council, the scheme extends to 600 m offshore. Under the scheme, the area that is now the sanctuary is zoned Public Park and Recreation Zone. These areas, in accordance with the *State Planning Policy Framework* (DSE 2003), should be zoned Public Conservation and Resource Zone. The adjacent land is overlaid with vegetation protection, erosion management, and design and development overlays, which specify local objectives and requirements that must be met by a development application. These limit building on the adjacent foreshore to the existing buildings and do not allow for extensions.

The seawall at Quiet Corner is managed and maintained by DSE. Coastal modifications and other changes to the hydrodynamics nearby or adjacent to the sanctuary, including artificial renourishment of the beach, could affect the natural and other values of the sanctuary through longshore drift, deposition and erosion. All coastal uses and developments or modifications require permission from the Secretary to DSE under the Coastal Management Act.

Parks Victoria is the Local Port Manager for Port Phillip under the *Port Services Act 1995* (Vic.). Under this legislation, Parks Victoria is responsible for the management of port infrastructure, including breakwaters, piers and jetties, and recreational boating including navigational aids, and the preparation and implementation of the Port Safety and

Environment Management Plan for Port Phillip (sections 4.2 and 6.8).

The Port of Melbourne Corporation is the Port Manager for the Port of Melbourne, which includes shipping channels that access the port. Oil or chemical spills from vessels accessing the South Channel could impact on the natural and recreational values of the sanctuary.

The Port of Melbourne Corporation proposal to deepen sections of Port Phillip's shipping channels to allow larger container ships to enter the port has the potential to affect the marine sanctuary, at least temporarily. Detailed predictions of impacts and proposed mitigation measures are outlined in the Port of Melbourne Corporation's Environmental Impacts Statement (POMC 2004). At the time of publication a trial dredging program and Supplementary Environmental Effects Statement were underway to further examine environmental and technical issues, including the potential for impacts on important ecological communities including within the sanctuary.

Aims

- Effectively communicate the location of the sanctuary boundaries.
- Minimise impacts from adjacent developments and uses on sanctuary values.

Management strategies

- *Maintain and if necessary improve boundary markers, signs and information about sanctuary boundaries.*
- *Recommend to Bayside City Council an amendment of the planning scheme to recognise the sanctuary by rezoning the area that is the sanctuary as Public Conservation and Resource Zone.*
- *Work with DSE and consult Bayside City Council to ensure beach renourishment activities and coastal remediation works adjacent to or near the sanctuary have minimal impact on the sanctuary (section 4.1).*
- *Consult with Bayside City Council on their proposed Indigenous cultural heritage trail in the adjacent foreshore reserve.*
- *Ensure that marine safety initiatives within the sanctuary and adjacent waters, including the implementation of Port Safety and Environment Management Plan improve environmental protection and visitor safety in the sanctuary.*
- *Liaise with the Port of Melbourne Corporation to minimise the impacts of oil and chemical spills from the nearby shipping channel on the sanctuary.*

8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

8.1 Community awareness

Raising the community's awareness of the sanctuary's values is an essential step in developing its sense of custodianship for the sanctuary and engagement in the area's management. The community is more likely to develop a sense of custodianship for the sanctuary if its views and values are respected and sanctuary-related social networks are encouraged and supported. A strong connection with the sanctuary among visitors and in the local and wider community assists in broader public education, raising awareness and reaching others in the community.

Several Friends and volunteer groups have active connections with the sanctuary (section 8.2) and can help to raise community awareness about the sanctuary through their participatory experiences, and through local publicity and their social networks.

Education and interpretation programs (section 6.1) play an important role in raising the awareness of the sanctuary in the wider community. Parks Victoria aims to communicate the benefits of a healthy parks system and its contribution to the health of individuals and society through the 'Healthy Parks Healthy People' program.

The Coast Action/Coastcare summer activity program is a prime example of encouraging the broader community to experience the coast (section 8.2).

Government agencies, business associations, welfare bodies, Indigenous and ethnic associations, tourism and recreational organisations and schools could also help to build community awareness within their community networks (sections 8.2 and 8.3).

Aims

- Increase the community's awareness and mutual understanding of the sanctuary's values and management activities.
- Support the sense of shared ownership and custodianship for the sanctuary among community groups and individuals.

Management strategies

- *Build broader community awareness of the opportunities and personal benefits of direct involvement in sanctuary management through interpretation and other information (section 6.1).*
- *Profile to the wider community the work of Friends, volunteers and community groups.*
- *Promote the benefits of assisting sanctuary programs to community groups in line with Healthy Parks Healthy People objectives.*
- *Collaborate with community groups to identify opportunities to increase public awareness about the sanctuary.*

8.2 Community participation

The participation of community groups and individuals in the sanctuary's management is pivotal in the effective long-term planning, use and care of the sanctuary's values.

Volunteers and community groups can make valuable contributions to sanctuary management. They bring diverse and valuable information, specific local knowledge, skills, concerns and experience that may otherwise not be available to the sanctuary managers. Despite the ongoing challenges of increasing administrative obligations, fluctuating membership and funding constraints, community groups bring considerable enthusiasm and add a valuable perspective and resources to assist with the care of the sanctuary.

The interests of community groups in the sanctuary often overlap and may not be complementary. There can be considerable mutual benefits where such groups work together and with Parks Victoria to achieve common goals. Parks Victoria can assist groups with advice and training, and by promoting the benefits of volunteerism.

Relevant Indigenous communities have considerable interest in and aspirations for the sanctuary as part of *Country*. They are also an

important potential source of traditional knowledge about the area that has yet to be documented. A strong working relationship with them will be essential to the reflection of the Traditional Owner's cultural lore in the sanctuary's planning and management and reconciliation of their interests and aspirations with those of other members of the community.

A strong network of Friends groups exists in the Beaumaris area. Marine Care – Ricketts Point is a volunteer Friends group specifically concerned with the wellbeing of the Ricketts Point Marine Sanctuary. The group's activities include marine education, monitoring and surveying. Other Friends groups actively involved in the conservation of the sanctuary or the adjacent foreshore reserve are the Beaumaris Conservation Society, Black Rock and Sandringham Conservation Society (BRASCA), Friends of Table Rock, Bayside Friends of Nature Wildlife, Friends of Watkins Bay and Friends of Ricketts Point Landside.

Reef Watch is a non-profit project developed by the Australian Marine Conservation Society (AMCS) and the Marine and Coastal Community Network (MCCN) and funded by the Federal and State Government through Coast Action/Coastcare. The project calls on the voluntary assistance of Victorian divers (both scuba and snorkel) to help describe and monitor marine life in a variety of habitats. Opportunities exist for Friends and volunteers to participate in Reef Watch programs in the sanctuary.

Coast Action/Coastcare programs work with a variety of volunteer groups and community organisations to help protect, monitor, manage and restore coastal and marine environments. In addition, Coast Action/Coastcare conducts education, training and awareness programs.

The Beaumaris Life Saving Club provides opportunities for participation in voluntary life-saving services in summer (section 6.8).

Aims

- Support and encourage community groups and volunteers to assist actively in the sanctuary's management by participating and contributing their knowledge and skills.

- Inform, enrich and strengthen the sanctuary's management with the community's tradition and customs, especially relevant Indigenous cultural lore.

Management strategies

- *Continue to maintain a strong and collaborative relationship with Friends and volunteer and community groups to ensure sustainable and rewarding volunteer experiences.*
- *Coordinate opportunities for Friends and volunteer and community groups to share experiences and discuss management objectives and work programs and progress in implementing the plan with Parks Victoria Rangers.*
- *Support initiatives which build the capability of community members and groups to effectively contribute to sanctuary management objectives.*
- *Maintain ongoing dialogue with active groups, neighbouring clubs and community groups with a broad community agenda, as well as appropriate training and other measures that better enable their participation in managing the sanctuary.*
- *Promote and support such groups to work together with each other and Parks Victoria to achieve shared goals for the sanctuary.*
- *Promote and support Coast Action/Coastcare programs within the sanctuary, particularly focusing on community interpretation and education.*
- *Promote community involvement in Reef Watch monitoring and recording programs and other programs using standard methods (sections 4.4 and 4.6).*
- *Continue to build, strengthen and maintain relationships with relevant Indigenous communities. In particular, seek to further develop a close inclusive working partnership with the Traditional Owners and cooperation with the scheduled Aboriginal community.*
- *Foster ongoing community engagement that captures the diversity of people, ideas*

and opinions present in the community through partnerships with community groups.

- *Support and encourage the establishment of new Friends and volunteer groups as appropriate.*

8.3 Agency partnerships

Although Parks Victoria is responsible for overall management of the sanctuary, other agencies are responsible for planning, managing or regulating certain activities in the sanctuary.

All activities relating to the sanctuary that are carried out by Parks Victoria or other agencies need to accord with all legislation and government policy and, as far as practical, be consistent with agencies' policies and guidelines. To ensure this occurs, Parks Victoria staff work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

The Department of Sustainability and Environment (DSE) establishes parks, oversees the management of land and resources of Victoria's coastal Crown land and waters, and provides strategic direction and policy advice for management of the sanctuary, including marine flora and fauna values and threatening processes. Parks Victoria is a support agency for responses to oiled wildlife and cetacean stranding or entanglement, operating at the direction of DSE (sections 4.2 and 4.4).

As part of agreed service delivery arrangements, Fisheries Victoria has primary responsibility for enforcement to ensure compliance with the fisheries prohibitions in the National Parks Act. Parks Victoria will continue collaborate with Fisheries Victoria and Victoria Police in activities such as cooperative Ranger and Fisheries Officer patrols and support arrangements in accordance the *City and Bays Regional Compliance Plan* (Parks Victoria 2003a). The Central Coastal Board (CCB) provides direction and policy advice to facilitate sustainable development of the central region of the Victorian coast through the implementation of the *Victorian Coastal Strategy* (VCC 2002) and *Coastal Priorities for the Central Region* (CCB 2003) (section 4.2).

Port Phillip and Western Port Catchment Management Authority is responsible for ensuring the protection and sustainable development of land, vegetation and water resources within the region, including the preparation of a regional catchment strategy to address the impact of land use and management on the catchment. The Port Phillip and Western Port Regional Catchment Strategy (PPWPCMA 2004) focuses on the management of land, water and biodiversity including the coastal and marine areas under the *Catchment and Land Protection Act 1994* (Vic.) (section 4.2).

The Victorian Environment Protection Authority (EPA) has the primary responsibility for environment protection of all waters in Victoria and is responsible for administering and enforcing the *Environment Protection Act 1970* (Vic.), including all activities relating to the discharge of litter and waste to the environment. EPA also develops and implements State Environment Protection Policies (SEPP) for state waters and facilitates the development of Neighbourhood Environment Improvement Plans (NEIPs) which enable communities to work towards achieving local environmental improvements (section 4.2).

Melbourne Water and Bayside City Council manage stormwater runoff and associated inputs into the sanctuary in accordance with the *Operating Charter for Waterways and Drainage* (Melbourne Water 1999) and the *Stormwater Quality Management Plan* (BCC 2001) (section 4.2). South East Water manages a sewage pumping station which diverts emergency sewage overflows into stormwater runoff discharging into the sanctuary in accordance with EPA guidelines.

Parks Victoria is a support agency for Marine Safety Victoria at a statewide and regional level for marine pollution incidents, contributing on-site response and incident management as well as technical advice. Parks Victoria is also the local authority responsible for administering the Marine Act, including marine safety initiatives (section 6.8) and planning and implementation of pollution response in accordance with the *Victorian Marine Pollution Contingency Plan* (MSV 2002a) (section 4.2).

Bayside City Council is the committee of management for the adjacent foreshore reserve and administers the planning scheme for land adjacent to the sanctuary, including assessing developments that could have an impact on sanctuary values. Parks Victoria provides input into planning applications to ensure that sanctuary values are protected (section 7.2).

Through Aboriginal Affairs Victoria (AAV), the Department for Victorian Communities (DVC) has responsibility for administering the Victorian Archaeological and Aboriginal Relics Preservation Act and the Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act (sections 2.5 and 5.1). These acts provide blanket protection for all Aboriginal cultural heritage values, including places and objects. AAV and the Cultural Heritage Unit advise Parks Victoria on Indigenous affairs, the promotion of knowledge, and understanding about Indigenous people of the area and the wider community.

Tourism Victoria is the State Government authority responsible for developing and marketing Victoria to Australian and international travellers.

Aim

- *Enhance sanctuary management by collaborating with other agencies to ensure that they give appropriate consideration to sanctuary values in planning and implementing activities that relate to the sanctuary.*

Management strategies

- *Work collaboratively with all agencies to implement the plan vision and directions of the plan, in particular work with:*
 - *AAV on compliance with relevant cultural heritage legislation and Indigenous affairs (section 5.1)*
 - *Bayside City Council on complementary management of the adjacent foreshore reserve and regarding the administration of the planning scheme, including input into adjacent or nearby developments that may impact on the sanctuary and the promotion of responsible pet ownership (section 7.2)*

- *the Central Coastal Board on any future plans and strategies that relate to the sanctuary*
- *DSE regarding future planning and management, including protection of marine flora and fauna from potentially threatening processes*
- *EPA to minimise impacts associated with discharge of waste into the environment, particularly those from stormwater, boating, shipping, marinas, ports and associated dredging activities (section 7.2), and assist local communities to develop a NEIP (section 4.2)*
- *Bayside City Council and Melbourne Water to minimise impacts associated with discharge of waste into the environment, particularly discharge from stormwater drains*
- *Fisheries Victoria to implement the fishing prohibition and the City and Bays Regional Compliance Plan*
- *Marine Safety Victoria on recreational boating safety and marine pollution incidents*
- *Port Phillip and Western Port CMA to reduce the impacts of land use and catchment management on the sanctuary and develop appropriate actions in the Regional Catchment Strategy*
- *State and regional tourism authorities to promote the sanctuary in regional visitor information centres and regional tourism strategies*
- *South East Water in the management of the nearby sewage pumping station.*
- *Update contingency plans for marine pollution incidents, such as oil and chemical spills, and cetacean/wildlife incidents as required, and communicate arrangements to staff, relevant agencies and interested parties.*

9 PLAN IMPLEMENTATION

9.1 Delivery and reporting

A range of approaches will be used to implement strategies in this plan. Some will be undertaken as part of routine management activities such as ranger visits; others will be addressed as part of regional programs undertaken across the State each year.

A priority list of all the strategies in the plan will be used to guide routine management, and identify strategies to be proposed for inclusion in annual regional programs. The selection of strategies for regional programs varies from year to year depending on available resources and government priorities. Once regional programs are approved, strategies and where necessary detailed actions will be included in works programs for the sanctuary.

At the end of each year, progress towards implementing strategies in the plan will be reviewed and the priority list updated. Staff report internally against 'on time and within budget' delivery of regional programs and whether the completed strategy has achieved the objective. Parks Victoria reports annually to Government on the overall delivery of regional and divisional programs. This broader reporting on management performance is available in annual reports prepared on the National Parks Act and Parks Victoria.

During implementation of the plan, Parks Victoria will consult with Traditional Owners and the scheduled Aboriginal Community. On-going collaborative activities with the relevant Indigenous communities, interested members of the community, scientists and agencies in realising the vision and management directions for the sanctuary will be especially important as outlined in previous sections of the plan.

Implementation of the plan will be consistent with Parks Victoria's commitment to sustainable practices, which involves the delivery of operations, services and facilities in an ecologically and socially responsible manner with minimal use of expendable resources and minimal generation of waste.

In implementing the plan, management will respond to monitoring and research information as it emerges. Parks Victoria's

environmental management framework makes this possible. Based on the International Standard for Environmental Management Systems (ISO 14001), the framework ensures that the future condition of values is considered in identifying threats and developing actions to ameliorate them. Over time the success of actions is reviewed against set objectives to ensure ongoing learning and refinement of management. The selection of actions and treatments of threats are guided by the precautionary principle. Management options are evaluated on the basis of least impact on the environment. Treatment of threats with a potential for serious damage that is not addressed in the plan will not be postponed for lack of information.

Parks Victoria will use a variety of means to report to the community about the progress of implementation of the plan. The primary means will be through routine liaison between Parks Victoria, interested groups and individuals from the local community and relevant government agencies. In addition to giving regular updates, there will be opportunities for input by interested members of the community into annual priority setting and feedback on management performance. Park open days and community and volunteer forums will offer similar opportunities for reporting and discussions about annual programs.

The results of monitoring and research work will continue to be available to the community as technical reports available on Parks Victoria's website, www.parkweb.vic.gov.au.

Parks Victoria will also report on evaluation of the plan (section 9.3) at the start of the new or revised plan, through routine liaison and community forums and in the subsequent draft plan.

Future reporting on the Statewide Strategy (Parks Victoria 2003) and State of the Parks reports, which will be available on the Parks Victoria's website, www.parkweb.vic.gov.au, will also include information on management performance in the sanctuary.

9.2 Plan amendment

During the 10 year life of the plan, amendments to the plan may only be made by the Secretary to DSE, following an authorised process which includes community consultation.

Circumstances that might lead to amendment of the plan include:

- the results of monitoring or research, management experience or new information (such as greater understanding of new threatening processes) which indicate the need for a change in management direction
- significant changes in visitation or use
- a change in policy that calls into question plan objectives
- new legislation (such as significant boundary changes).

The plan may also be amended if an activity, development or use which conflicts with the provisions of the plan is approved by government (such as native title outcomes).

9.3 Evaluation and review

Periodically through the life of the plan Parks Victoria will assess overall progress towards implementing the strategies in the plan and also assess progress towards achieving the plan vision and directions. These evaluations will inform a decision about whether a new or revised plan is required. The achievements of the plan will be assessed by considering performance areas such as:

Protecting natural values

- Overall improvement in biodiversity

- Compliance with no-fishing provisions and sanctuary regulations
- Timely management intervention to minimise threats
- Minimal impact of permitted uses

Protecting cultural values

- Timely management intervention to minimise threats

Managing recreation and visitor use

- Managing impact from visitors, including individuals and school and tour groups
- Meeting community expectations in relation to Parks Victoria's management of the sanctuary
- Improving community and visitor awareness

Providing for research and promoting understanding

- Improving understanding of the composition and distribution of habitats and ecological processes
- Ongoing community participation
- Clear identification of major knowledge gaps.

Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria has partnered with external research agencies to establish benchmarks and indicators for major communities and habitats. By using sound monitoring and assessment methods this monitoring and research work will strengthen the basis for comparing management performance over time.

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GLOSSARY

Accretion – slow addition to land by deposition of water-borne sediment.

Algae – photosynthetic plant-like organisms belonging to the kingdom Protista. Unlike plants, not differentiated into roots, stems and leaves. Commonly called seaweed.

Amphipod – a small crustacean of the order Amphipoda, such as the beach flea, having a laterally compressed body with no carapace.

Anticline – a fold with strata sloping downward on both sides from a common crest.

Ascidian (sea squirt) – common solitary or colonial marine animal.

Attrition – a rubbing away or wearing down by friction.

Ballast water – water carried in a ship's tanks for stability; normally discharged to the sea when the ship is loaded, and can be contaminated with pollution or exotic organisms.

Beach renourishment – artificial renourishment of eroding beaches by pumping sand from a suitable part of the seabed.

Benthic – of or relating to or happening on the bottom under a body of water

Biodiversity – the natural diversity of all life: the sum of all our native species of flora and fauna, the genetic variation within them, their habitats and the ecosystems of which they are an integral part.

Bioregion – an area with particular underlying environmental and ecological features.

Bivalve – type of mollusc with a pair of hinged shells (e.g. scallop, mussel).

Bryozoan (lace coral) – common small colonial marine animal with a flat or upright growth form and a range of colours.

Catchment – the area of land that drains to a watercourse or estuary.

Coast – in broad terms, the sea and the seabed to the State limit (three nautical miles, or 5.5 km) and the land and inland waters within the coastal catchment.

Coastal action plan – plan that identifies strategic directions and objectives for use and development in the region or part of the region to facilitate recreational use and tourism, and to provide for protection and enhancement of significant features of the coast, including the marine environment.

Coastal zone – includes coastal waters and those areas landward of the coastal waters where there are

processes or activities that affect the coast and its values.

Coastline – generally, where the land meets the sea.

Committee of Management – a committee appointed under the Crown Land (Reserves) Act to manage reserved Crown land on behalf of the Minister. For coastal land, committees are either an agency (e.g. the local municipality, Parks Victoria or the Department of Sustainability and Environment) or a committee appointed through an expression of interest process.

Copepod – small marine and freshwater crustaceans of the subclass Copepoda, having an elongated body and a forked tail.

Coralline algae – algae that contain calcified components. Can take a variety of forms from encrusting to upright.

Country – all of nature, culture and spirituality relating to an area.

Crown land – land belonging to the State.

Crustacean – arthropods of the class Crustacea, including lobsters, crabs, shrimps, and barnacles, characteristically having a segmented body, a chitinous exoskeleton, and paired, jointed limbs.

Cryptic – tending to conceal or camouflage.

Ctenophores – any of various marine animals of the phylum Ctenophora, having transparent, gelatinous bodies bearing eight rows of comb like cilia used for swimming; also called a comb jelly.

Cultural lore – tradition about songs, rituals, ceremonies, dances, art, customs and spiritual beliefs.

Customs – observances and practices of people (includes land management and resource use) in accordance with their tradition.

Cyanobacteria – photosynthetic bacterium of the class Coccogoneae or Hormogoneae, generally blue-green in colour and in some species capable of nitrogen fixation. Cyanobacteria were once thought to be algae, also called blue-green alga.

Diatom – microscopic one-celled or colonial algae of the class Bacillariophyceae, having cell walls of silica consisting of two interlocking symmetrical valves.

Dinoflagellates – small protozoans of the order Dinoflagellata, characteristically having two flagella and a cellulose covering and forming one of the chief constituents of plankton; including

bioluminescent forms and forms that produce red tide.

Driftwood – Wood from natural a source floating or that has been washed ashore.

Ebbing – receding tide.

Echinoderm – radially symmetrical marine invertebrates of the phylum Echinodermata, which includes the starfishes, sea urchins, and sea cucumbers, having an internal calcareous skeleton and often covered with spines.

Ecologically sustainable development (ESD) – development that improves the total quality of life both now and in the future, in a way that maintains the ecological processes on which life depends.

Ecologically sustainable use – the use of a species or ecosystem at a level that allows it to naturally renew.

Ecosystem – a dynamic complex of interacting organisms and their associated non-living environment.

Effluent – a liquid, partially or completely treated or in its natural state, flowing from a water or sewage treatment plant.

Epiphytic – a plant that grows on another plant upon which it depends for mechanical support but not for nutrients.

Exotic marine organism/species – refer to Pest.

Ferruginous – of, containing, or similar to iron or having the colour of iron rust; reddish-brown.

Flooding – advancing tide.

Foram – protozoans of the order Foraminifera, characteristically having a calcareous shell with perforations through which numerous pseudopods protrude.

Foreshore – generally, the land between a coastal road and the low water mark.

Gastropod – molluscs of the class Gastropoda, such as the snail, slug, cowrie, or limpet, characteristically having a single, usually coiled shell or no shell at all, a ventral muscular foot for locomotion, and eyes and feelers located on a distinct head.

Geomorphology – the scientific study of landforms and geological formations and the processes that shape them.

Glacial – of, relating to, or derived from a glacier; a glacial epoch.

Habitat – the preferred location or ‘home’ of an organism.

Heritage – a place, activity, cultural way of life, structure or group of structures that have aesthetic,

historic, scientific or social value for past, present or future generations.

High water mark – the landward boundary of high water mark is the average of the highest tides (spring and neap).

Hydroid – small, tentacled animal related to corals and sea-jellies. Common but often overlooked.

Indigenous cultural heritage – cultural lore, places and objects of significance to Indigenous people in accordance with tradition.

Indigenous people – people who are descendants of Aboriginal Australians.

Indigenous species – species that occur naturally in a region.

Infrastructure – physical structures that facilitate the human use of an area (e.g. roads, paths and toilet blocks).

Interglacial – Occurring between glacial epochs.

Intertidal – relating to the area between low and high tide levels, which is subject to daily changes in physical and biological conditions from tide movements.

Invertebrate – an animal without a backbone at any stage of development (e.g. worms, sponges, crustaceans, molluscs).

Isopods – crustaceans of the order Isopoda, characterized by a flattened body bearing seven pairs of legs and including the sow bugs and gribbles.

Low tide terrace – beach characterised by a moderately steep beach face, which is joined at the low tide level to an unattached bar or terrace.

Marine National Park – in Victoria, highly protected areas reserved and managed under Schedule 7 of the National Parks Act that represent the range of marine environments in Victoria, and in which no fishing, extractive or damaging activities are allowed.

Marine pest – Aquatic animals, plants or pathogens that, if introduced to waters outside their natural or previous distribution, may pose a risk to human health or the environment, and may affect the biodiversity and ecological processes of the marine ecosystem and impact on any other beneficial uses.

Marine protected area – a marine area that has some form of protection and is managed for conservation objectives.

Marine Sanctuary – in Victoria, a small, highly protected area reserved and managed under Schedule 8 of the National Parks Act to protect special values, and in which no fishing, extractive

or damaging activities are allowed. These areas complement Marine National Parks.

Meiofauna – animals whose shortest dimension is less than 0.5mm but greater than or equal to 0.1mm.

Microhabitats – a very small, specialized habitat, such as a space between rocks.

Micro-organisms – an organism of microscopic or submicroscopic size, especially a bacterium or protozoan.

Midden – a mound or deposit containing the remains of shellfish eaten by Indigenous people. Coastal shell middens can consist of the shells from a single meal or many different meals eaten in the same location over many years. Middens can also contain the remains of a more varied diet including fish, seal and kangaroo, as well as other cultural items such as stone and bone artefacts.

Mollusc – broad group of animals including snails, sea slugs, squids, octopuses, cuttlefish and mussels.

Monocline – a geologic structure in which all layers are inclined in the same direction.

Mooring – a structure or apparatus used to secure a floating object. A private mooring is a mooring installed and maintained by any non-government agency or individual other than Parks Victoria.

Morphology – the characteristics and configuration and evolution of rocks and land forms [syn: geomorphology].

Nature-based tourism – tourism that provides a range of experiences associated with the natural environment, generally related to outdoor activity.

Neap tide – tide occurring twice every month between spring tides but is slightly lower.

Nematodes - worms of the phylum Nematoda, having unsegmented, cylindrical bodies, often narrowing at each end.

Outfall – the place where sewage is discharged to the ocean.

Pest – exotic organisms (plants, animals or pathogens) that, if introduced outside their natural or previous distribution, cause significant changes to habitats, food chains, ecosystems or human health by feeding on or competing with native species. Can refer to either terrestrial or marine species.

Photosynthesis – the process by which organic molecules are made from carbon dioxide and water, using light energy. This process is essential for the growth and survival of plants and algae.

Phytoplankton – minute, free-floating aquatic plants.

Plankton – the collection of small or microscopic organisms, including algae and protozoans, that float or drift in great numbers in fresh or salt water, especially at or near the surface, and serve as food for fish and other larger organisms.

Polychaetes – annelid worms of the class Polychaeta, including mostly marine worms such as the lugworm, and characterized by fleshy paired appendages tipped with bristles on each body segment.

Practices – the traditional land management and resource use practices of Indigenous people.

Primary productivity – a measure of the rate at which new organic matter is developed through photosynthesis and chemosynthesis in producer organisms based on the oxygen released and carbon taken in; the transformation of chemical or solar energy to biomass.

Recruitment – the residual of those larvae that have dispersed, settled at the adult site, made some final movements toward the adult habitat, metamorphosed successfully and survived to be detected by the observer.

Relevant Indigenous communities – includes the Traditional Owners and the scheduled Aboriginal community for area included in the sanctuary.

Remnant vegetation – remaining natural vegetation.

Scheduled Aboriginal community – the body scheduled as the local Aboriginal community under of the Aboriginal and Torres Strait Islander Heritage Protection Act relating to the area.

Sediment – insoluble material carried in water, consisting mainly of particles derived from rock, soil and organic material; in particular such material that has settled out of the water, onto the seabed.

Semidiurnal – occurring or coming approximately once every 12 hours, as the tides.

Sessile organism – an organism that is attached to an underwater surface (e.g. pier, seabed, pile).

Sewage – household and commercial waste water including human and industrial wastes.

Shellfish – an aquatic animal, such as a mollusc or crustacean, which has a shell or shell-like exoskeleton.

Sponge – multicellular, filter-feeding animals with a variety of forms. Sponges are the simplest form of invertebrate life.

Spring tides – occur twice every month at new and full moon and are the highest tides.

Stakeholder – an individual or group that has a vested interest in, or may be affected by, a project or process.

Stormwater – runoff from land during and following rain. Stormwater removes accumulated material including litter, soil, nutrients, pathogens, chemicals, pesticides, oils and grease.

Substrate – a surface on which an organism grows or is attached.

Subtidal – waters below the low-tide mark.

Syncline – a fold in rocks in which the rock layers dip inward from both sides toward the axis.

Threatening process – a source of potential harm or a situation with a potential to cause loss.

Tradition – the body of knowledge, belief and customs that is passed from generation to generation.

Traditional Owners – communities of people that reasonably assert an association with the sanctuary area that is based on direct descent from the original Indigenous custodians of *Country*, in accordance with Indigenous tradition.

Translocation – the transfer of pests from one area to a new area.

Transverse bar and rip beach – beach characterised by transverse sand bars separated by deeper rip channels and currents; most common type of beach on the Victoria ocean coast.

Turbidity – having sediment or foreign particles stirred up or suspended; muddy: *turbid water*.

Values – natural and cultural assets (e.g. historic artefacts, features, species, communities) that have been given worth or are considered to be desirable.

Vascular plant – plants, such as the ferns and seed-bearing plants, in which the phloem transports sugar and the xylem transports water and salts.

Vessel (as defined in the Marine Act) – any kind of vessel that is used, or capable of being used, in navigation by water, however propelled or moved, and includes (a) a barge, lighter, floating restaurant or other floating vessel; and (b) an air-cushion vehicle, or other similar craft, that is used in navigation by water; and (c) any aeroplane that is designed for and capable of being waterborne, for so long as that aeroplane is waterborne.

Water column – water habitat extending between the surface and the seabed.

Wrack – organic matter, including seaweed that has been washed ashore.

Zooplankton – plankton that consists of animals, including the corals, rotifers, sea anemones, and jellyfish.

Abbreviations

AAV – Aboriginal Affairs Victoria

CBD – Central business district

CAMBA – China - Australia Migratory Bird Agreement

CSIRO – Commonwealth Scientific and Industrial Research Organisation

DIVA – Dive Industry Victoria Association

DSE – Department of Sustainability and Environment, formerly NRE

ECC – Environment Conservation Council, formerly LCC, now VEAC.

EPA – Environment Protection Authority

JAMBA – Japan - Australia Migratory Bird Agreement

GPS – Global positioning system

LCC – Land Conservation Council

LTO – Licensed tour operator

MOU – Memorandum of understanding

MSV – Marine Safety Victoria

NRE – former Department of Natural Resources and Environment

NRSMPA – National Representative System of Marine Protected Areas

PWC – Personal water craft

Scuba – Self contained underwater breathing apparatus

SDFV – SCUBA Divers Federation of Victoria

SEMP – Safety and Environment Management Plan

SEPP – State Environment Protection Policy

VCC – Victorian Coastal Council.

APPENDIX 1 MANAGEMENT OBJECTIVES FOR MARINE SANCTUARIES

Management objectives for marine national parks and marine sanctuaries included on Schedule 7 or 8 of the National Parks Act are in Sections 4 and 17D as listed below. For an up-to-date copy of the National Parks Act refer to Victorian Acts on the Victorian Legislation and Parliamentary Documents website: www.dms.dpc.vic.gov.au.

Section 4. Objects of the Act

The objects of this Act are –

- (a) to make provision, in respect of national parks, State parks, marine national parks and marine sanctuaries –
 - (i) for the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;
 - (ii) for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks; and
 - (iii) for the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks; and
 - (iv) for the responsible management of the land in those parks;
- (c) to make provision in accordance with the foregoing for the use of parks by the public for the purposes of enjoyment, recreation or education, and for the encouragement and control of that use.

Section 17D. Marine national parks and marine sanctuaries

(3) The Secretary must—

- (a) ensure that each marine national park and marine sanctuary is controlled and managed in accordance with the objects of this Act in a manner that will –
 - (i) preserve and protect the natural environment and indigenous flora and fauna of the park and any features of the park which are of geological, geomorphological, ecological, scenic, archaeological, historic or other scientific interest; and
 - (ii) promote the prevention of the introduction of exotic flora and fauna into the park; and
 - (iii) provide for the eradication or control of exotic flora and fauna found in the park; and
- (b) subject to paragraph (a) –
 - (i) provide for the use, enjoyment and understanding of Marine National Parks and Marine Sanctuaries by the public; and
 - (ii) promote and understanding of the purpose and significance of Marine National Parks and Marine Sanctuaries; and
- (c) prepare a plan of management in respect of each marine national park and each marine sanctuary.

APPENDIX 2 SUBMISSIONS ON THE DRAFT MANAGEMENT PLAN

A total of 307 submissions were received of the draft plan, comprising 20 from organisations, 287 from individuals and 55 marked confidential.

ORGANISATION	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER
Submissions from organisations	20	Submissions from individuals	287	Viv & Terri Charalambous	295
Australian Marine Conservation Society, Melbourne Branch	198	Scott Adams	98	Heather Clark	76
Australian Marine Ecology	303	Virginia Allnutt	111	Rod Clark	79
Bayside City Council	278	Beverley & John Alway	199	Peter-Jon Clarkson	81
Bayside Dog Owners Group	290	David & Margaret Anderson	160	Graham Clayton	150
Bayside Friends of Nature Wildlife	158	Stuart Baber	113	Trevor & Lise Cleary	24
Beaumaris Conservation Society Inc.	156	Geoff & Dawn Bade	170	Lesley Coleman	1
Beaumaris Motor Yacht Squadron	181	Andrew Ball	10	James Crossley	94
Bird Observers Club of Australia	154	Robyn Ballantyne	259	William Crumble & R. De Langie	19
Central Coastal Board	299	Jeremy Banks	206	Deborah & Derek Daubney	269
Department of Defence, Australian Government	300	Janette Barry	257	Pia Davies	284
EPA Victoria	280	Jean Baster	16	Julie G. Davis	185
Fisheries Victoria – DPI	306	Ken Beadle	182	Annie Dawson	112
Friends of Ricketts Point Landside	183	Shayne Benedict	15	Elizabeth, Nicholas, Emily & Timothy Day	37
Heritage Victoria	178	Barry Beucs	62	Steph Dearie	282
Kingston City Council	161	Elsbeth Black	30	Barbara Ebes	131
Marine Care Ricketts Point	305	David Blanks	177	Peter Edwards	302
Ricketts Point Dog Walkers and Bird Watchers Group	34	Jill Boughton	289	Ruth Edwards	301
Scuba Divers Federation of Victoria SDFV	197	David Bradley	84	Vickie Edwards	171
Tourism Victoria	307	Phillip Braithwaite	196	Joan Evans	227
Victorian Wader Study Group	304	Anne Bruce	63	Margaret Evans	102
		Alison Bult	32	Glenda Fehler	218
		John & Hazel Butler	27	Claudia Fischer	213
		Philip & Bethy Cain	273	Paul Fisher	187
		Peter & Heather Cameron	162	Kath Fletcher	241
		Pat Carden	216	Maureen Foster	122
		Elizabeth Carlin	260	Graham Gilpin	92
		Robert & Prudence Carr	167	Fulvio Godina	134
		Anita Carswell	271	Sally Goodwin	39
		Tim Casanelia	90	Leanne Gray	117
		Barry Challenger	73	Chris Grigsby	203
				Mark Gwizdalla	202

Appendices

INDIVIDUAL	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER
Jennifer Halliday	239	Amy Kirkwood & Warren Roberts	165	Gregory Mier	13
Jacqui Hallinan	172	Betty Knight	132	Mel Mitchell	211
Kieran Hallinan	247	Emma Knight	116	Airlie Morris	66
Max Handshin	179	Helene Knight	100	David Morton	142
Andrea Hansen	38	Ross Knight	190	Robert Muir	83
Greg Hansen	48	Joan Krstic	125	John Neve	277
Sam Hansen	59	Astrid Krueger	159	Michael Norris	291
Allan B. Harper	186	Barbara Labb	70	April Nutter	279
Ron & Sibyl Hayton	55	Simone Landford	145	Jeffrey Olson	246
Terry Honeysette	281	Melinda Langdon	233	Tessa Osman	263
Peter & Lorraine Hegarty	224	Kristy Langford	144	J. Pastrdy	286
Robert Heppell	237	Pat Lewis	54	S.J. Patterson	176
Norrene Hill	223	Peter Loney	143	Diana Pearce	201
Richard Hill	288	Sandy Loney	146	Edward E. Pearce	205
Fred Hofmann	245	Moira Longden	200	Margot Pearce	272
Reto Hofmann	147	Ken & Rosalie Lucas	153	Steve Pearce	141
Patricia Hosking	52	Jill Mannering	168	Elena Pereyra	251
Joan Hossack	42	Philip Marks	33	Chris Phillips	188
Marie & Barry Howarth	75	Colin & Kerry Martin	80	Carole Pike	265
Gabrielle Humphris	292	Geoff Mason	71	Coralie Pirrie	82
Hilary Hunt	51	Nellie Matsacos	248	Vivienne Player	166
Anne Hurle	250	Allan Mc Donald	22	Alana Plehwe	91
Gwen Inesow	69	Lesley McBain	115	Walter Plehwe	50
Lindsay Ingram	195	Jill McBride	194	Anthony Plummer	184
Shirley & David Joy	180	Jim & Sue McCarthy	3	Elinor Poci	56
Lynda Judkins	96	Ken McCarthy	127	F. Poggi	234
Olga Junek	215	Rodney McFarlane & Helen Vaughan	106	Susan Poulakakis	208
Vyt Karazija	217	Felicity McGrath	297	Barbara Prendergast	266
David & Wendy Kay	46	Jacqui McIntosh	128	Genevie & Calvin Pusterla	97
Mark Kay	235	Jim & Virginia McKenzie	17	Hazel Ramsden	65
Jeanette Kendall	191	Erin McLaughlin	219	Jessica Ramsden	85
Michael Kerdel	121	Phillip McLaughlin	221	Irene Raptis	285
Stephen Kerdel	163	Ralph McLaughlin	220	Barry Rayner	193
Beverly Kerr	231	Peter McOrist	275	Rose Read	64
Gita Kininmonth	87	Constance Mealoney	7	Patricia Reid	25
Richard L. Kirby	124	Charmain Meilliar	274	John Rennick	173
				Georgie Rhind	232

INDIVIDUAL	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER	INDIVIDUAL	SUBMISSION NUMBER
Linda Rice	23	Joan Simpson	58	Murray Thompson MP	164
Anthea Riordan	230	Jeanie Smith	45	Robert Toogood	18
Richard J.Riordan	238	Cyrid Smith	228	Wendy Tueno	253
Ian Robert	229	Robyn & Adrian Smith	101	Glenda & Gil Urquhart	268
Melene Roberts	287	Suzanne Corrie Smith	244	Ian Wade	26
Warren Roberts	283	Fritz Sommer	151	Alan Wallis	130
Diana Robertson	204	Susan South	93	Julie Wallis	61
A.G. Robertson	209	Julia Spratt	67	Sue Warburton	12
Kathryn Robinson	129	John Stenford	28	Andrew Watkins	210
Kathy Robinson	243	Melissa Stewart	140	Traci Whitaker	99
Merle Virginia Robinson	294	Wendy Stewart	157	Tina White	118
Campbell Robinson & Lisa Panetta	89	Paul Stuart	135	Ted Whittle	225
Bill Rowe	270	Albert & Anne Sulzer	53	Carole & John Williams	40
Erin Rui	249	Jean Sutcliffe	43	Carolyn Williams	137
Jenny Samms	120	Barry Sutton	126	R. Williams	60
Jane Saunders	133	Chris Sutton	298	Fay Witherow	44
Christina Sawaya	212	Margaret Sutton	138	Olga & Brian Witty	20
Wendy & Peter Scanlon	4	Mark Sutton	107	Gregory Wilkinson	262
Martin Schmidt	214	Judith Sveadman	11	Sharon Wright	264
N. Scotte	169	Monique Swift	74	Susan M. Young	267
		Penny Tame	119		

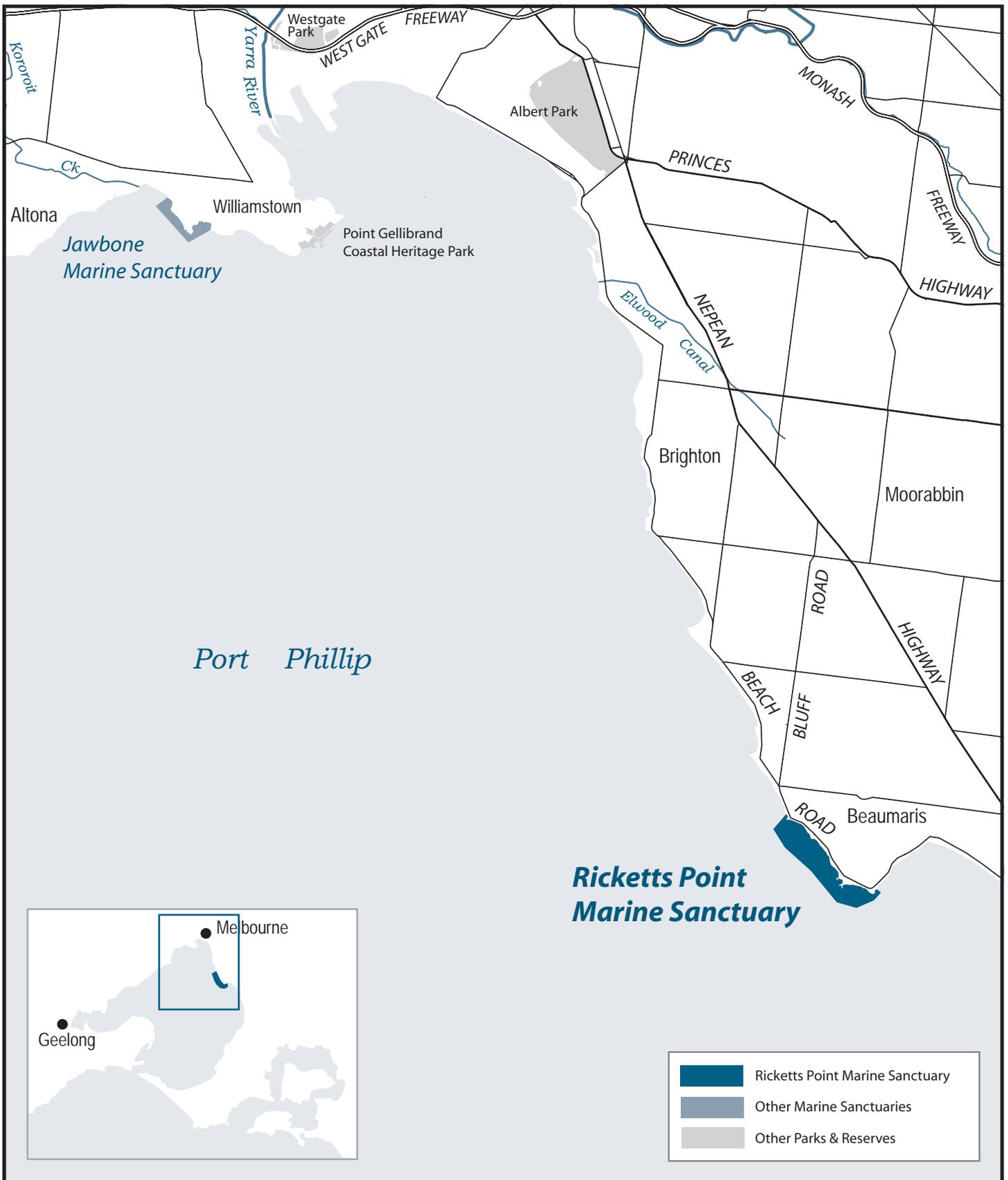


Figure 1
LOCATION

Ricketts Point Marine Sanctuary



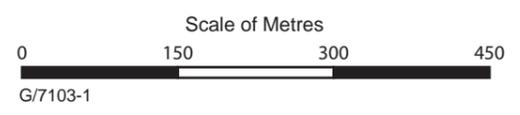
Scale of Kilometres



G/7103-1



Figure 2
Ricketts Point Marine Sanctuary



Note: Latitude and Longitude values are based on WGS84



- | | | | |
|--|------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------|
| | Ricketts Point Marine Sanctuary | | Road |
| | Foreshore reserve (Bayside City Council) | | Walking track |
| | Park (Bayside City Council) | | Low tide (approx.) |
| | No boating zone | | Depth contours (metres) |
| | Car park | | Sea wall |
| | Intertidal rock & seagrass area (approx.) | | Marine interpretation |
| | Shore boundary marker
Colour indicated by letter | | Disabled access |
| | Water boundary marker - pile
Colour indicated by letter | | Picnic area |
| | Water boundary marker - buoy
Colour indicated by letter | | Picnic shelter |
| | Navigational light
Colour indicated by letter | | Life saving club |
| | Navigational aid - land based | | Toilets |
| | Emergency location number | | Lookout |
| | Locked gate | | Swimming |
| | Building | | Diving |
| | Jetty | | Dogs on lead
- subject to seasonal restrictions (section 6.6)
- sandy intertidal beach areas |
| | Stormwater drain | | No dogs
- intertidal rock & seagrass areas |

