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# Mushroom Reef Marine Sanctuary



Management Plan April 2007

This Management Plan for Mushroom Reef 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 May 2006. Nine submissions were received. All submissions have been considered in preparing this approved Management Plan.

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**MUSHROOM REEF MARINE SANCTUARY  
MANAGEMENT PLAN**

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April 2007

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## 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 the Mushroom Reef Marine Sanctuary Management Plan Advisory Group: Harry Breidahl, Ian Brett, David Bryant, Denis Cox, Steve Crow, Dr Rob Day, Neil Hallam, Darren Gerard, Penelope Johns, Colin Morrison and Wolfgang Sasse.

## 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 Indigenous 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 that may arise from you relying on any information in the publication.

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## FOREWORD

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Mushroom Reef Marine Sanctuary protects unique basalt reefs at Flinders near the western entrance to Western Port. The sanctuary is notable for its diversity of marine life and significant roosting, feeding and breeding areas for migratory and threatened bird species.

The diverse rocky platforms and reefs within the sanctuary have been explored by divers and studied by scientists and naturalists, revealing numerous animal species not previously known to science. Many school children have learned about the wonders of the marine world on the sanctuary's reefs.

The care of Mushroom Reef Marine 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 an important part of our marine environment.

I thank the Mushroom Reef Marine Sanctuary Management Plan 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 support for the management of Mushroom Reef Marine Sanctuary.

JOHN THWAITES MP  
Minister for Environment,  
Water and Climate Change

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## APPROVED MANAGEMENT PLAN

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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 Mushroom Reef Marine Sanctuary. It was finalised following consideration of the nine submissions received on the Draft Management Plan.

PETER HARRIS  
Secretary to the  
Department of Sustainability and Environment

MARK STONE  
Chief Executive  
Parks Victoria

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## INTRODUCTION TO THE MARINE ENVIRONMENT

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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. They support more than 12 000 known species, of which around 90% of 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, which protect a range of significant species and important habitats, as well as maritime artefacts and evidence of past Indigenous occupation, make up about 5% of this area.

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

The organisms that occupy the marine environment are different as well. On land vascular plants dominate, but in marine habitats they are much less common. 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. octopuses, abalones, snails), crustaceans (e.g. crabs, lobsters, tiny amphipods) and echinoderms (e.g. sea cucumbers, seastars 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 released from ships on the open seas, or washed from the shores of other countries. And many marine animals migrate long distances, passing freely into and out of Victorian waters, 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 *Victoria's System of Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003a). 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 terrestrial protected areas in our world-class system of protected areas.

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 Mushroom Reef Marine Sanctuary to the statewide system**

The Mushroom Reef Marine Sanctuary is significant in the representative statewide system for its ecological values and for its values for underwater recreation and potentially for marine education (ECC 2000).

### **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. 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 historic and cultural places and objects 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 association 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 sanctuary 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 Mushroom Reef Marine Sanctuary and to strengthen its protection while respecting cultural and community associations with the area.



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## SUMMARY

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Mushroom Reef Marine Sanctuary (80 ha) was recommended for its ecological and underwater recreation values and its potential for marine education. The sanctuary protects a system of ancient basalt platforms and reefs on the southern Mornington Peninsula coast that form a rich variety of marine microhabitats.

The sanctuary is renowned for the diverse flora and fauna it supports, particularly in the intertidal area. The beaches and intertidal area within the sanctuary also provide significant roosting, feeding and breeding areas for migratory and threatened bird species.

The diverse rocky platforms and reefs within the sanctuary have long been used and valued by scientists and teachers for marine education and research. The accessibility of the subtidal reefs provides unique opportunities for snorkelling and diving from the shore.

Future management directions for the sanctuary include the following:

- Maintain the intertidal reef platforms and beaches for migratory and other shorebirds.
- Protect natural processes to ensure an overall benefit to biodiversity and ecological communities.
- Undertake and encourage research to improve the scientific basis for management.

- Reflect Indigenous knowledge, interests and rights in the land, and aspirations for the sanctuary, in all planning and management.
- Respect the views of the Boonwurrung<sup>1</sup> people and cultural obligations of Indigenous people.
- Maintain and promote opportunities for marine education that rely on the special values of the sanctuary.
- Promote opportunities for visitors to enjoy underwater recreation and shore-based activities that enable visitors to observe marine life and learn about the sanctuary.
- Manage recreational and educational activities within the sanctuary sustainably and with minimal impact on the sanctuary's values.
- 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.

<sup>1</sup> This management plan adopts the spellings used by the Native Title Unit, Department of Justice. Boonwurrung is a known form of the name for this Aboriginal tribal group. Boonwurrung may be spelt in a number of different ways, including 'Boonerwung' and 'Bunurong'.

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# 1 INTRODUCTION

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## 1.1 Location and planning area

Mushroom Reef Marine Sanctuary is on the Bass Strait coast at Flinders near the western entrance to Western Port, 92 km by road south of Melbourne (figure 1). The sanctuary (80 ha) abuts the Mornington Peninsula National Park and extends from the high water mark to approximately 1 km offshore.

The shoreline boundary extends 702 m along the Flinders Ocean Beach from a point approximately 300 metres east of Kings Street to a point approximately 500 metres west of West Head Car park (figure 2). On the shore, yellow triangular markers mark the east and west shoreline boundaries and provide sightlines to the offshore boundaries.

Bismarck Reef, which is commercially fished for abalone, is outside the sanctuary, approximately 100 metres seaward of the southern boundary (section 7.2).

## 1.2 Creation of the sanctuary

Mushroom Reef Marine Sanctuary forms part of the system of 13 Marine National Parks and 11 Marine Sanctuaries in Victorian waters. The selection of these areas was based on more than 10 years of research, investigation and community consultation carried out by the former Land Conservation Council (LCC) and Environment Conservation Council (ECC) and 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.). Mushroom Reef 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 Marine National Parks and Marine Sanctuaries, than apply for taking or damaging fauna, plants or objects from these areas.

The sanctuary includes areas between the high and low water mark that were formerly part of the Mornington Peninsula National Park.

## 1.3 Plan development

This first Management Plan for the sanctuary was prepared by Parks Victoria, with significant input from the Mushroom Reef 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 *Victoria's System of 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 and facilities 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 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 Management Plan was published as a Draft Plan for public comment in 2006, and nine submissions were received (appendix 2).

Where necessary, further consultation with the community and stakeholders was undertaken.

Key changes made to the Draft Plan in preparing this Final Management Plan were the further clarification of various strategies to protect shorebird habitat and stronger

mechanisms to better manage visits by school groups and monitor trampling impacts.

The Final Management Plan will direct future management of the Mushroom Reef Marine Sanctuary, until reviewed.

### 2.1 Regional context

Mushroom Reef 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 (ANZECC TFMPA 1999).

Mushroom Reef Marine Sanctuary is one of eight Marine National Parks and Marine Sanctuaries in the Central Victoria 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). Mushroom Reef Marine Sanctuary protects approximately 0.02% of the Central Victoria marine bioregion.

The Victorian Central bioregion encompasses the open coastline from Cape Otway to Cape Liptrap, west of Wilsons Promontory. The bioregion is relatively exposed to swells and weather from the south-west and is characterised by shallow near-shore reefs and sandy beaches along with large areas of sand and patchy, low profile reefs offshore. The marine flora and fauna are a diverse mixture of species from the adjacent biogeographical provinces in addition to cosmopolitan southern Australian species (Parks Victoria 2003a).

The sanctuary is within the Mornington Peninsula and Western Port Biosphere Reserve, which is a combined urban/rural UNESCO biosphere reserve. The biosphere reserve has a combined area of 2142 square kilometres and contains the sanctuary as well as a mix of residential, industrial, farming, fishing, recreational, conservation, and tourism activities.

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

Mushroom Reef Marine Sanctuary is within the Western Port Catchment of the Port Phillip

and Western Port Catchment Region. Being located near the western entrance to Western Port, the sanctuary is influenced by activities in the catchment, which is in the Port Phillip and Western Port Catchment Management Authority's area of responsibility.

The coastal area abutting the sanctuary includes a narrow coastal section of Mornington Peninsula National Park and is typified by low coastal vegetation. The Flinders Golf Course provides a buffer between the Mornington Peninsula National Park and residential areas in the township of Flinders.

Mushroom Reef Marine Sanctuary protects 702 m of the coastline and adjacent waters east of Kings Street to the West Head Car Park and is complemented by a number of nearby parks, including:

- Mornington Peninsula National Park
- Point Nepean National Park
- Bass Park (Crown land)
- Churchill Island Marine National Park
- French Island Marine National Park
- Yaringa Marine National Park
- Port Phillip Heads Marine National Park, incorporating, Point Nepean, Popes Eye, Portsea Hole, Point Lonsdale, Swan Bay and Mud Islands
- Arthurs Seat State Park.

The sanctuary is within Tourism Victoria's Melbourne's Bays and Peninsulas product region. Accommodation and camping areas close to the sanctuary include holiday and bed and breakfast accommodation at Flinders, and caravan park accommodation at Flinders, Shoreham and Point Leo. The Melbourne's Bays and Peninsulas product region receives 16% of all tourist visits to Victoria, including 2.2 million domestic overnight visitors, 6.7 million domestic day visitors and 53 000 international overnight visitors (Tourism Victoria 2003).

## 2.2 Sanctuary significance and values

Mushroom Reef Marine Sanctuary makes a valuable contribution to Victoria's parks and reserves system, which aims to protect viable representative samples of the State's natural marine and terrestrial environments. The sanctuary also provides opportunities for visitors to enjoy and appreciate natural and cultural values, and makes an important contribution to tourism.

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 Friends of Flinders Coastline, other community groups, individuals, residents of the Flinders 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.

Mushroom Reef Marine Sanctuary is assigned the International Union for the Conservation of Nature and Natural Resources (IUCN) Category III (National Monument) of the United Nation's List of National Parks and Protected Areas. Category III areas are managed primarily for conservation of specific natural features.

The sanctuary contains intertidal and subtidal habitats and microhabitats that enable an extremely high diversity of flora and fauna to exist. Together with Honeysuckle Reef at Shoreham, the sanctuary contains the most diverse intertidal rocky reef community in Victoria (ECC 2000). Important values of the sanctuary are listed below:

### Natural values

- Among the most diverse intertidal and rocky reef communities in Victoria (Handreck & O'Hara 1994).
- Numerous subtidal pools and boulders in the intertidal area that provide a high complexity of intertidal basalt substrates and a rich variety of microhabitats.
- Subtidal reefs that support diverse and abundant flora including kelps, other brown algae, and green and red algae.

- Sandy bottoms habitats that support large beds of *Amphibolis* seagrass and patches of green algae.
- Diverse habitats that support sedentary and migratory fish species.
- A range of reef habitats that support invertebrates including gorgonian fans, seastars, anemones, ascidians, barnacles and soft corals.
- A distinctive basalt causeway that provides habitat for numerous crab, seastar and gastropod species.
- Intertidal habitats that support resident and migratory shorebird species including threatened species.

### Cultural values

- A reported Indigenous fish trap (Luebbbers 1998).
- An important landmark and area for gathering fish and shellfish for the Boonwurrung people.
- Marine microhabitats and species of great scientific interest that provide valuable areas for marine research and education.

### Recreational and tourism values

- Opportunities to experience a marine environment, including subtidal communities easily accessible from the shore.
- High diversity of marine habitats in good condition close to Melbourne and major coastal towns of the Mornington Peninsula.
- Excellent opportunities for underwater recreation activities such as diving and snorkelling among accessible subtidal reefs.

## 2.3 Evidence of past use

Western Port and the surrounding region were rich in food sources for Indigenous people. The Boonwurrung clans were hunters and gatherers who travelled and set up campsites depending on seasonal changes in the availability in food. The intertidal reefs of the sanctuary would have provided an abundance of fish and invertebrates. The coastline



adjoining the sanctuary contains many middens and other remnants, which provide evidence of the extensive history of use of the area by the Boonwurrung people (section 5.1).

Western Port was a site of early European exploration and settlement in Victoria, and the waters and beaches around Flinders were some of the first coastal areas used by European fishers and whalers in the early 19th century. The sanctuary has been explored by many divers and scientists and used for marine research and education for over 50 years.

The sanctuary area was used for commercial and recreational fishing, particularly for abalone, until its proclamation in 2002.

## 2.4 The sanctuary visitor

Most visitors to the sanctuary come from Melbourne and the Mornington Peninsula. Many of these visitors are not exclusively attracted by the sanctuary but are drawn by the recreational opportunities and cultural attractions in and around Flinders Township. The Flinders Ocean Beach section of the park receives approximately 85 000 visits per year (A. Musgrove pers. comm.).

The second largest segment of sanctuary visitors are residents or regular holiday home occupiers at Flinders.

Another major source of visitors is researchers and school groups who use the sanctuary to study the marine environment. A large percentage of residents, holiday home occupiers and researchers are repeat visitors.

Visitors to the sanctuary enjoy a variety of recreational activities, including walking and exploring in intertidal areas, diving and snorkelling on the reefs and sightseeing.

There are no visitor services other than ranger patrols within the sanctuary, and facilities consist only of boundary markers (section 7.2) and signage (section 6.1).

## 2.5 Legislation and ECC recommendations

### Legislation

Mushroom Reef 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 and shellfish collection are prohibited within the sanctuary under the National Parks Act. A Statewide Compliance Strategy (Parks Victoria 2002b) and a Regional Compliance Plan (Parks Victoria 2003c) have been developed in partnership with the Department of Primary Industries (DPI) – Fisheries Victoria 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 Mushroom Reef 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 the use and any 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, including listed threatened species and communities and listed migratory species in the sanctuary.

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

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

Other legislation, and policies and guidelines (section 2.6) at both the Commonwealth and State levels apply to management of the sanctuary and specific activities and uses.

### **ECC recommendations**

The former Environment Conservation Council (ECC), in its *Marine, Coastal and Estuarine Investigation Final Report* (ECC 2000), recommended the creation of Mushroom Reef Marine Sanctuary for its ecological and underwater recreation values and its potential for marine education (ECC 2000).

The ECC also made a number of recommendations that relate to the sanctuary. The recommendations included:

Recommendation B10 Use of Mushroom Reef Marine Sanctuary in accordance with the general recommendations for Marine Sanctuaries.

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.

All of these recommendations were accepted by the State Government in 2002 (Government of Victoria 2002).

## **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 2003a)
- *Indigenous Partnership Strategy and Action Plan* (Parks Victoria 2005a)
- *Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites* (Parks Victoria 2002a)
- *Victoria's Biodiversity Strategy* (NRE 1997a)
- *National Strategy for Ecologically Sustainable Development* (COAG 1992)
- *National Strategy for the Conservation of Australia's Biological Diversity* (ANZECC 2001)
- *Heritage Management Strategy* (Parks Victoria 2003b).

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

- *Mornington Peninsula National Park and Arthurs Seat State Park Management Plan* (Parks Victoria 1998)
- *Nature Based Tourism — Directions and Opportunities for Victoria 2000–2003* (Tourism Victoria 2000)
- *Victorian Coastal Strategy* (VCC 2002)
- *Port Phillip and Western Port Regional Catchment Strategy 2004–2009* (PPWPCMA 2004)
- *State Environment Protection Policy* (Waters of Victoria)
- *Policy for Sustainable Recreation and Tourism on Victoria's Public Land* (NRE 2002).

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## 3 STRATEGIC DIRECTIONS

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### 3.1 Sanctuary vision

A future visitor to Mushroom Reef Marine Sanctuary finds an ecosystem recognised as being Victoria's best example of intertidal and subtidal reef diversity, with a management model that is widely respected as ideal for the management of marine sanctuaries.

An effective partnership between community and the government maintains a successful balance of marine biodiversity conservation and public use for enjoyment, recreation and education, with due respect to *Country* of Traditional Owners.

Visitors come to the sanctuary from near and far, with an appreciation of the sensitivity and significance of its special values, to explore the sanctuary's rocky shores by the natural cobblestone causeway, and immerse themselves in the spectacular waters of Bass Strait. Snorkellers, divers and underwater photographers enjoy impressive arrays of seagrass, invertebrates and fish species in thriving communities among an ocean of ledges, gutters and bommies.

Low-impact research and education activities flourish, and the knowledge gained is much appreciated by the community and guides sound management.

### 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).

### 3.3 Management directions

Major management directions for the sanctuary are outlined below.

#### Natural values conservation

- Natural processes, including competition, predation, recruitment and disturbance,

will be protected to ensure an overall benefit to the biodiversity and the variety of marine ecological communities in the sanctuary.

- Identified threats to the sanctuary will be minimised through addressing the outcomes of ongoing monitoring, risk assessment and, where feasible, complementary adjacent, coastal and catchment management.
- Water quality will be monitored and managed through cooperation with catchment managers and other relevant agencies.
- The value of feeding and roosting habitat for migratory birds and other shorebirds will be maintained.
- Seagrass beds will be maintained subject to natural ecological processes.
- Compliance with legislated provisions that prohibit extractive activities, including fishing and shellfish collection, will be ensured through education, information, community support, and improved surveillance and enforcement.
- Parks Victoria's understanding of the impacts of educational and recreational use on the sanctuary will be enhanced by ongoing research and monitoring programs.
- The research and monitoring program for the sanctuary will be carried out as outlined in *Victoria's System of Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003a) through collaborative research links with other agencies and the community to improve the scientific basis for management of the sanctuary.

#### Cultural values conservation

- Indigenous places and objects will be protected from interference or damaging activities.
- The Traditional Owners' knowledge, 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 cultural obligations relating to *Country* will be respected and the Traditional Owners' knowledge will be promoted and interpreted in accordance with their views.
- Research into Indigenous and historic cultural heritage of the sanctuary will be encouraged and supported as appropriate, in consultation with the Indigenous and wider communities.
- The intertidal reefs will be managed to provide opportunities for research and education that rely on the special values of the sanctuary.

#### **The sanctuary visit**

- Visitors will have opportunities to learn about the sanctuary and its special values.
- Visitors will have opportunities to observe marine life, enjoy water sports and participate in other recreational activities compatible with management objectives.
- Visitor understanding and appreciation of the sanctuary's natural and cultural values will be enhanced by a range of information services, and interpretation and education programs.
- Mushroom Reef Marine Sanctuary will remain available for university and school programs that rely on the special values of the sanctuary.
- Universities, schools and other visitors will be encouraged to investigate, and if appropriate, use areas outside the sanctuary for activities that do not rely on the sanctuary's special values.

- Visitor enjoyment will be enhanced by appropriate management of recreation activities.
- Visitors will be encouraged to adopt minimal-impact techniques and to adhere to industry-developed standards appropriate to diving, snorkelling and shore-based ecotourism.
- Recreational opportunities will be provided in accordance with table 1.

#### **Community awareness and involvement**

- Strong collaborative partnerships will be developed with the Traditional Owners to facilitate the reflection of their knowledge, rights, and interests and aspirations in the park's planning and management.
- Friends, volunteers and other interest groups will be encouraged to develop an understanding and appreciation of the park's values and the rich and diverse knowledge and aspirations of the Traditional Owners, and to participate in areas of the sanctuary's management relating to their interests.
- An awareness and understanding of the sanctuary and its management, and a sense of custodianship for the sanctuary, will be encouraged among local communities and visitors.
- Strong relationships will be further developed and maintained with individuals, groups and communities with strong associations with, or interests in, the sanctuary, as a basis for encouraging their appropriate participation in its management.
- Ongoing opportunities will be given for individuals, groups, communities and government agencies to discuss their issues and aspirations relating to the sanctuary with Parks Victoria.

**TABLE 1 SUMMARY OF RECREATIONAL OPPORTUNITIES**

<b>ACTIVITY</b>	<b>SANCTUARY</b>
Aircraft landing/launching (including hang-gliding and paragliding)	Y
Beachcombing (no collecting)	Y
Bait collection	N
Bird watching	Y
Boating (section 6.6)	
Kite-boarding / wind-surfing	Y
Motorised boating	Y
Non-motorised boating (canoe, kayak, surf-ski)	Y
Personal Watercraft (PWC)	Y
Sailing	Y
Wake boarding / water skiing	Y
Boat operation (sections 6.2 & 6.6)	
Anchoring	Y
Landing	Y
Launching motorised vessels (no facilities)	N
Launching non-motorised vessels (no facilities, no trailers)	Y
Mooring (private)	N
Camping	N
Collection of animals, seaweed, shells and driftwood	N
Cycling	N
Diving and snorkelling (sections 6.2 & 6.4)	Y
Dog walking (section 6.5)	N
Driving on beaches	N
Educational/guided activities (sections 6.1 & 6.7)	Y
Feeding wildlife	N
Filming & photography	Y
Fires on beaches	N
Fishing (all forms)	N
Fossil / artefact collection	N
Hang gliding and paragliding	Y
Horse riding	N
Licensed tours (section 6.7)	Y
Nature photography, painting,	Y
Picnicking	Y
Prospecting and metal detecting	N
Rock climbing / abseiling	N
Rockpool rambling (section 6.3)	Y

Table 1 (cont'd)

ACTIVITY	SANCTUARY
Scenic viewing	Y
Shell collecting	N
Surfing / boogie boarding (section 6.6)	Y
Swimming (sections 6.3 and 6.8)	Y
Walking (intertidal zone – soft)	Y
Walking (intertidal zone – rocky)	Y
Whale / dolphin / seal watching (section 4.4)	Y

Note: The use of chainsaws and generators is prohibited within the sanctuary.

**Key:**

- Y Yes, subject to overlay prescriptions and conditions prescribed by legislation, permits or elsewhere in the plan as indicated.
- N Not permitted.
- NA Not applicable.

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## 4 STRATEGIES FOR NATURAL VALUES CONSERVATION

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### 4.1 Geological and geomorphological features

The geology and geomorphology of the sanctuary are linked to the biological diversity found there, particularly in the intertidal area. The ancient basalt platforms and subtidal reefs within the sanctuary are solidified lava formed during the Eocene epoch of the Tertiary period, around 42 to 47 million years ago (Douglas & Ferguson 1976). They belong to a group of rocks called the Older Volcanics that are typical of those along the Flinders coastline and southern Mornington Peninsula. These ancient basalts reach an estimated thickness of 600 metres at Flinders (Keble 1968). They can also be seen as a series of solidified lava flows forming spectacular cliffs along the coastline of the southern Mornington Peninsula, Phillip Island and French Island.

The cliffs adjacent to the sanctuary and the shore platforms within the sanctuary hold clues to the close relationship between landform and geology. The cliffs at West Head show that during the Eocene epoch basaltic lava moved over this area in a series of fluid flows that stand out as layers of hard, dark basalt interspersed with relatively thin red layers of clay, sand and gravel. These red layers formed during the times between lava flows and commonly contain plant remains. An outcrop of fossiliferous limestone can be seen in the cliff near the eastern boundary of the sanctuary. This pale limestone was laid down on top of weathered basalt during the Pleistocene epoch.

The intertidal platforms within the sanctuary present a horizontal section view of a lava flow with a hexagonal fracture pattern formed by the cooling of the lava. Hexagonal columns typically weather and break down to form rounded cobbles and boulders, common on the rocky shores of the Mornington Peninsula and Phillip Island.

The ocean waves of Bass Strait have shaped the basalt in the sanctuary over millions of years to create a range of microhabitats on intertidal platforms, and have formed overhanging ledges, bommies and gutters below the waves.

The name Mushroom Reef is derived from the shape of the largest of three basalt intertidal platforms within the sanctuary, which has an oval intertidal reef connected to the shore by a basalt causeway that together have a mushroom-shaped appearance. This basalt platform is an example of an unusual coastal landform known as a tombolo. The distinctive shape has been formed by incoming waves refracting around the reef platform and depositing basalt cobbles onto the gap between the platform and the shore (section 4.3). This tombolo is unique because the spit is made up of basalt cobbles. The refracted wave pattern continues to maintain the cobble causeway linking the platform to the beach.

On the outer edges of the basalt platforms the force of the ocean waves has produced almost perfectly rounded rockpools, formed by loose cobbles or boulders being stirred in a circular grinding motion by waves at high tide. Some of these rockpools still contain grinding rocks, so that the grinding process is continuing.

The unique geological and geomorphological features are significant elements of *Country* of the Boonwurrung people.

Despite the unusual nature of the basalt cobble causeway at Mushroom Reef, no sites of geological or geomorphological significance have been identified in the sanctuary.

#### Aims

- Protect the geological and geomorphological features of the sanctuary from the impacts of human activity.
- Increase knowledge of the geological and geomorphological significance of the sanctuary.

#### Management strategies

- *Encourage research to identify geologically or culturally significant features, particularly features significant to the Traditional Owners (sections 5.1 and 8.3).*
- *Allow natural geological and geomorphological processes to continue without human interference.*

- *Manage visitor activities to protect unique geomorphological features from damage (sections 6.1 and 8.2).*
- *Include information on the unique geology and geomorphology of the sanctuary in interpretation services.*
- *Consider the significance of landforms in interpreting sanctuary and implementing management programs (sections 4.5, 5.1, 6.1 and 8.2).*

#### **4.2 Catchment and water quality**

Mushroom Reef Marine Sanctuary is close to, but outside, the western entrance of Western Port, within the Western Port catchment managed by the Port Phillip and Western Port Catchment Management Authority (section 8.3). The catchment has an area of 343 000 ha, 22% of which is covered by indigenous vegetation, mostly along the coastline and on the forested hills of the upper catchment. The Western Port catchment contains seven water supply catchments which together supply 73 900 ML of water annually for domestic, industrial, and agricultural use. The catchment receives approximately 800–1000 mm in rainfall annually. Groundwater is also an important resource in the catchment with 18 830 ML licensed annually for domestic and agricultural use. The catchment has a population of about 225 000 people, and includes areas designated for future major urban growth. The catchment is a significant area for tourism and recreation. Melbourne Water is the designated waterway manager for the Western Port catchment.

The sanctuary's water quality is predominantly affected by the clean ocean waters of Bass Strait. There are no direct freshwater discharges into the sanctuary, but local water quality may be indirectly affected by runoff from Double Creek, Dodds Creek, Main Creek and Stockyard Creek and by tidal flows from the western entrance to Western Port, which is about one kilometre east of the sanctuary.

Double Creek, the closest stream to the sanctuary, receives stormwater from part of Flinders township and discharges to the beach approximately 500 m west of the sanctuary. When stream flow is high after heavy rain, creek water including pollutants and sediments

is dispersed into the sanctuary by a westerly ocean current.

Dodds Creek, which originates a short distance inland, flows through Flinders township and enters Western Port east of West Head. Flinders will be seweraged in 2008, and this may reduce the flow of fresh water and nutrients into the sanctuary.

Main Creek, which is the longest and largest of local streams and drains from the main ridge of the Mornington Peninsula, discharges at the coast five kilometres west of the sanctuary near Cape Schanck. Stockyard Creek drains agricultural land and is located between Main Creek and Double Creek.

The sanctuary may be affected by the sewage plume from the Eastern Treatment Plant that discharges at Boags Rocks near Gunnamatta, approximately 20 km west of the sanctuary.

The waters of the sanctuary are protected by The State Environment Protection Policy (Waters of Victoria) gazetted under the *Environment Protection Act 1970* (Vic.), which aims to provide a coordinated approach for the protection and, where necessary, rehabilitation of the health of Victoria's water environments. The policy requires operators of vessels to install effective on-board waste containment facilities to avoid the disposal of wastes or sewage from vessels (section 8.3).

Under the *Environment Protection Act 1970* (Vic.), littering and the discharge of wastes from vessels is illegal. Litter in the sanctuary may be derived from urban areas and transported through stormwater systems, rivers and waterways, discarded from vessels within in or near the sanctuary, or discarded by visitors to the sanctuary and adjacent areas. Litter discarded by recreational fishers from vessels or from nearby piers may also enter the sanctuary. More information about the sources of litter is required to develop targeted preventative programs. Litter may have to be collected from shorelines to prevent injury to people and animals, and the re-circulation of litter into the marine environment.

Marine pollution from Bass Strait and Western Port, including oil or chemical spills, is a possible hazard to the sanctuary's water quality. Responses to marine pollution incidents often require a diverse range of skills



and resources involving coordination between different agencies (section 8.3). As the manager of 70% of Victoria's coastal areas, Parks Victoria plays a significant support role in the response to marine pollution incidents. The responsibilities for responding to emergency incidents in Victoria and Victorian waters are outlined in the *Emergency Management Act 1986* (Vic.). In Victorian waters, the Victorian Marine Pollution Contingency Plan (VICPLAN) (MSV 2002) outlines broad response arrangements to a potential oil or chemical spill (section 8.3).

#### Aims

- Protect and maintain water quality within the sanctuary to ensure that sanctuary values are protected.
- Minimise the impact of threatening processes from catchment-derived activities.

#### Management strategies

- *Observe and obtain data from the relevant waterway manager on significant stream flow events that could threaten sanctuary water quality.*
- *Liaise with Port Phillip and Westernport Catchment Management Authority, Melbourne Water and other relevant organisations on catchment issues that may indirectly influence the water quality of the sanctuary.*
- *Remove accumulated litter from accessible intertidal areas within the sanctuary where necessary to ensure public safety and to protect sanctuary values.*
- *Investigate sources of litter within the sanctuary and liaise with Mornington Peninsula Shire to minimise litter within the sanctuary.*
- *Encourage the participation of community groups in litter investigation and collection programs in the sanctuary, subject to safety considerations.*
- *Permit 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).*

- *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.*
- *Respond to marine incidents within the sanctuary in accordance with the Emergency Management Act and the Victorian Marine Pollution Contingency Plan (VICPLAN) (MSV 2002).*

### 4.3 Hydrodynamics

On the southern shore of Mornington Peninsula, the hydrodynamics of the sanctuary's waters are dominated by the ocean swell and weather patterns of Bass Strait and the Southern Ocean. The sanctuary's waters are relatively shallow; the majority of the subtidal waters are 2–3 m deep, although the waters around the outer reef reach depths of 12 m (figure 2). The average water surface temperature is 15.5 °C. Tidal amplitudes within and around the sanctuary are approximately 2 m and follow an unequal semidiurnal tidal pattern. Beaches and rocky shores on this section of the coast receive ocean waves averaging 1.7 m (Short 1996).

A complex and changing pattern of breaking waves influences the shallow waters of the sanctuary during each tidal cycle. The time between low and high tides is approximately six hours and the complete cycle can be observed from the cliffs above the sanctuary. The tidal cycle provides an excellent opportunity to observe the hydrodynamic influence on the structure of shore platforms and reefs within the sanctuary.

The ocean swell is influenced significantly by the topography of the basalt reefs and platforms of the sanctuary. Linear incoming wave crests are refracted around the submerged basalt, creating the distinctive mushroom shape of the large platform (section 4.1). At low tide an offshore basalt reef is exposed; wave energy is reduced when waves break on this reef and the shallow in-shore waters of the sanctuary are then relatively calm.

Both wave and wind action influence the beaches and rocky shores of the sanctuary, affecting grain size and the erosion and deposition of sediments. Natural

hydrodynamic events such as storm surges and regular sand erosion or deposition continue to occur.

Potentially threatening processes to the hydrodynamics of the sanctuary include rising sea levels and altered current flows. Because human-induced changes to local hydrodynamic processes could affect the values of the sanctuary, proposals for new infrastructure, including artificial reefs, are generally inappropriate for Marine National Parks or Marine Sanctuaries.

### Aims

- Minimise the impacts on sanctuary values from human-induced changes to local hydrodynamic processes.
- Increase knowledge of the way in which local hydrodynamic processes, especially wave refraction, influence the intertidal structures within the sanctuary.

### 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 guide future management of the sanctuary.*

## 4.4 Habitats and communities

The sanctuary's basalt reefs provide for a range of intertidal and subtidal microhabitats, including rockpools, overhanging ledges, boulders, bommies and gutters, supporting diverse and abundant flora and fauna. Along with Honeysuckle Reef at Shoreham, the sanctuary has one of the most diverse intertidal rocky reef communities in Victoria (Handreck & O'Hara 1994).

Indigenous people recognise natural values as intrinsic elements of *Country*. Many of the natural values of the sanctuary, including the diversity and abundance of waterbirds and aquatic species which provided seasonal food sources, are significant to the Traditional Owners.

The flora and fauna communities that occupy the intertidal platforms (30% of the sanctuary's total area), are adapted to extreme variations in environmental conditions such as wave energy, flooding, exposure to light and drying. These communities are conspicuously dominated by the brown alga Neptune's Necklace and the green alga *Caulerpa brownii*. Among these are interspersed mats of coralline algae such as *Jania*, species of brown algae *Cystophora* and patches of green Sea Lettuce.

The invertebrate fauna in intertidal areas include a range of gastropods, with Blue Periwinkle, Ribbed Top Shell and Striped-Mouth Conniwink most abundant in higher areas. The limpets include the Common Limpet; other molluscs including the Dog Whelk and Wavy Turbo. There are also chitons and barnacles. Tubeworms form encrusting calcareous masses on the basalt which are microhabitats for other invertebrates such as crabs, worms and amphipods.

The rocky boulders of the rockpools contribute to the complexity of the intertidal environment, providing excellent habitats for crabs and sea stars. The fascinating Black-and-white Sea Star *Smilasterias multipara*, which broods its young in its stomach, is found only on basalt reefs in Victoria and Tasmania and occurs in the sanctuary (O'Loughlin & O'Hara 1990).

Subtidal habitats occupy about 65% of the sanctuary's total area. Most subtidal habitats are well protected from the high energy levels of the open coast by a reef to the south of the sanctuary. The rocky substrates of subtidal reefs are thickly covered by algae, particularly *Carpoglossom confluens*, *Ecklonia radiata* and *Phyllospora comosa*. The sheltered sandy bottoms of the subtidal pools support beds of *Amphibolis* seagrass and patches of green algae (Plummer et al. 2003).

Little information has been recorded about the subtidal fauna. Snorkellers and divers describe the area as supporting ascidians, gorgonian fans, sponges and corals. Crayfish inhabit rocky crevices, and Weedy Sea Dragons have been observed among the seagrass and kelp.

The subtidal reefs include abalone habitat. The populations of abalone, sea urchins and brittle stars have declined (ECC 2000), but as they are now fully protected in the sanctuary these species may increase in abundance.

The water column of the sanctuary has both planktonic and free-swimming species. Planktonic species are poor swimmers and are largely dependent on currents for movement, nutrients and food. Plankton primarily consists of microscopic animals such as copepods, and protists such as diatoms. The larvae of larger animals, such as jellyfish and ctenophores, also form part of the plankton. Many organisms spend the early stage of their life in the plankton before returning as recruits to the adult habitat. Common free-swimming animals observed in the sanctuary include weed fish, clingfish, wrasses, leatherjackets, sweeps, morwongs, cowfish, Warty Prow Fish, Moonlighter's Magpie Perch and whiting. Cartilaginous fish include Banjo, Swell, Port Jackson, Cat and Elephant Sharks, rays, octopuses, cuttlefish and squids.

Marine mammals that may pass through the sanctuary include Dolphins, Killer Whales and the threatened Australian Fur Seal, Humpback Whale and Southern Right Whale. 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 for whales and dolphins are 30 m for swimmers and divers, 50 m for surfers and 100 m for recreational and commercial vessels, including personal watercraft and motorised swimming aids.

The *Victorian Cetacean Contingency Plan* (NRE 1999c) specifies arrangements for dealing with marine mammals that become stranded, entrapped, entangled or wounded. The *Wildlife Response Plan for Oil Spills* (NRE 1997b) guides the rescue and treatment of injured or oiled wildlife.

The sandy beaches and higher intertidal areas of the sanctuary are habitats for invertebrates, including Burrowing Shore Crabs. Wrack washed up on the shore is important habitat and food for numerous invertebrates such as amphipods and isopods. These organisms are important components of marine food chains.

The sanctuary's beach is also important habitat for shorebirds, which include threatened species such as the Kelp Gull, Pacific Gull and Crested Tern. Numbers of Sooty Oystercatchers can be seen feeding and roosting. Flocks of Curlew Sandpipers and

Red-necked Stints are commonly observed feeding on the shore between August and May, before migrating to Siberia to breed. Ruddy Turnstones feed and roost in the sanctuary, but over the last 10 years much of the population appears to have moved to other areas to feed (P. Johns pers. comm.). The Hooded Plover, listed as a vulnerable species, has been recorded in the sanctuary over the last five years (V. Teoh pers. comm.).

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

The exclusion of dogs from the sanctuary would reduce the level of disturbance to birds and may assist in maintaining or increasing their abundance in the sanctuary (section 6.5). Domestic cats from homes in Flinders township can kill birds and other native animals that use the beach and intertidal areas.

Unmanaged foot traffic, fossicking and nature study activities by large numbers of visitors and students who are attracted to the protected offshore rockpools by the access provided by the causeway are threats to the diversity and abundance of intertidal fauna and flora (section 6.3).

Changes to water quality will affect the relative abundance of flora in intertidal areas and could modify subtidal reefs in the sanctuary (section 4.2).

All species recorded within the sanctuary that are listed as threatened or protected by international agreements or other legislation (e.g. JAMBA, CAMBA) are either birds or large marine mammals such as the Australian Fur Seal. This reflects the current vertebrate focus of threatened species management. 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 because of their rarity, cryptic nature, or lack of search effort.

All forms of extraction, including recreational and commercial fishing and the collection of living or dead organisms and natural driftwood, are prohibited within the sanctuary. The feeding of animals, including fish and birds, is not permitted in Marine National Parks or Marine Sanctuaries.

Despite the sanctuary's popularity and its long-term use for education, little has been recorded about habitats and communities in and around the sanctuary. Research by marine ecologists in the sanctuary has focused on Blacklip Abalone (Officer et al. 2001), bryozoans (Klemke 1993) and intertidal zonation (Synnot & Wescott 1976). Local naturalists have observed reductions in the diversity and abundance of a number of fauna species over the last 15 years (W. Sasse pers. comm.).

Current research and ongoing monitoring is directed by the Statewide Strategy (Parks Victoria 2003a) and is targeted at collecting baseline biological information for the sanctuary that will be used to build knowledge, identify threats, and understand long-term changes in population abundances, community structure and ecological processes in the life of this plan. Long-term intertidal and subtidal reef monitoring sites have been established within the sanctuary (Edmunds et al. 2004). To understand the sanctuary within a broader context, monitoring compares these with sites outside the sanctuary boundaries. This work will assist in identifying indicator species and habitats. The results, available on Parks Victoria's website, will enable an assessment of the ecological condition of the sanctuary to be made.

Volunteers, community groups and Sea Search and Reef Watch activities can make a valuable contribution to the monitoring of the sanctuary and other management programs (section 8.2).

#### **Aims**

- Protect marine ecological communities and indigenous flora and fauna, and allow natural processes to continue.
- Improve knowledge of marine ecological communities, flora and fauna and threatening processes to improve management, protection and appreciation.

#### **Management strategies**

- *Manage the use of the rocky intertidal areas by organised groups from schools and universities to minimise impacts on species diversity and habitats (section 6.3).*
- *Record sightings of marine flora and fauna on the Parks Victoria Environmental Information System and DSE statewide databases (section 8.3).*
- *Map habitats at scales suitable for management purposes as part of the statewide habitat mapping program.*
- *Encourage research into key threatening processes and major knowledge gaps, including impacts of trampling and illegal harvesting of invertebrates in the sanctuary.*
- *Work with seabird and shorebird conservation organisations to support bird monitoring programs within the sanctuary.*
- *Promote and support opportunities for community participation in Sea Search and Reef Watch monitoring programs within the sanctuary (section 8.2).*
- *Undertake regular risk assessments to assess the major threats to the sanctuary, and review management programs as appropriate.*
- *Encourage research to identify Indigenous knowledge relating to communities and species (sections 5.1 and 8.2).*
- *Reflect Indigenous knowledge of marine life in management practices as appropriate.*
- *Respect the cultural obligations of Traditional Owners in relation to marine life and their significance in all management and visitor activities.*
- *Extend the pest animals control strategy from the Mornington Peninsula National Park into the sanctuary's beach and intertidal areas.*
- *Ensure that all visitors comply with the Wildlife Act, Fisheries Act and Wildlife (Whale) Regulations when observing marine life, particularly compliance with no-fishing provisions (sections 6.4 and 8.3).*

- *Respond to cetacean incidents in accordance with the Victorian Cetacean Contingency Plan (section 8.3).*

#### 4.5 Landscape and seascape

For many people, views of the sanctuary evoke an emotional or spiritual response. Local residents, holiday makers and educators have a strong affinity with the sanctuary's land and seascapes. Snorkellers and divers treasure the accessibility and diversity of the marine life that can be observed from the shores. The landscape and seascapes of the sanctuary are intrinsic elements of *Country* for Traditional Owners, in accordance with tradition.

The vista from the cliff tops or the shoreline is of textures and spaces on sandy beach, basalt pebble grounds and rocky pools that vary seasonally. Below the water the scene is of spectacular colour, reefs and substrates covered by an array of sessile invertebrates, kelp forests and seagrass meadows.

From high points such as West Head, the sanctuary, natural landforms and vegetation of the abutting Mornington Peninsula National Park form part of a spectacular expanse of Bass Strait coast dominated by ocean swells and strong currents. These scenic elements are complemented by and merge with the natural coastal landscape of the adjacent section of the Mornington Peninsula National Park. Land to the north of the national park is dominated by modified non-indigenous vegetation.

The outstanding scenery of Mushroom Reef Marine Sanctuary and its surroundings is full of contrasts. Key elements of the land and seascape include:

- a prominent basalt causeway connecting intertidal platform and sandy beach
- ocean swells rolling and breaking on reefs and beaches
- intertidal rocky reef platforms that vary frequently with the conditions, and with the seasons
- an array of underwater colour and diversity.

The scenery can be enjoyed from various vantage points, including:

- the shoreline, intertidal platforms or boats on the water
- below the waterline in the sanctuary
- lookouts and roads adjacent to the sanctuary, including West Head.

Landscape character types are used to broadly characterise different landscape types (DSE 2006), however the sanctuary is within Metropolitan Melbourne which was excluded from the study. Further details about landscape management objectives and guidelines are provided in the Municipal Reference Document for the area.

The coastal landscape of the sanctuary is sensitive to developments about Flinders township, particularly urban building development. The visual intrusions in the low coastal vegetation are highly visible over long distances. The car parks within the national park that provide access to the sanctuary are a significant visual intrusion. Signage and boundary marking can also create a visual intrusion (section 7.2). The VCC's *Siting and Design Guidelines for the Victorian Coast* (VCC 1998) provide guidelines to assist in the protection of coastal landscape values.

The *Mornington Peninsula Planning Scheme* (MPS 2002) provides the framework for assessing developments proposed for the coastal land abutting the sanctuary. This public land is zoned Public Park and Recreation, but in accordance with the *State Planning Policy Framework* (DSE 2003) it should be zoned Public Conservation and Resource. (section 7.2). An Environmental Significance Overlay and Significant Landscape Overlay apply to the nearby coastal area and provide additional controls for protection of the landscape from inappropriate developments.

#### Aims

- Protect landscape and seascape values within the sanctuary, including the natural beauty and character.
- Minimise visual impacts on the seascape and landscape of management activities and any future developments.

## Management strategies

- *Ensure that external agencies that have potential to affect landscape and seascape values consider their importance in planning and managing their activities (section 7.2).*
- *Respect the significance of landscape to the Traditional Owners in planning and implementing management activities, and interpretation and education programs (sections 4.1, 5.1, 6.1 and 8.2).*
- *Seek improvements to adjacent access facilities, particularly car parking areas in the national park, to reduce their intrusion into the coastal landscape as viewed from access routes and viewing areas (sections 6.1 and 6.2).*

## 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. While 18 exotic species have been identified in Western Port (Parry & Cohen 2001); evidence suggests that only 12 of these species have established self-sustaining populations in Western Port. Currie and Crookes (1997) identified seven exotic species in the Port of Hastings. The European Shore Crab is known to be present in the sanctuary in significant numbers. It was introduced to Victorian waters in the mid 1800s and little is known about its impact in Victorian waters, but it is believed to displace local crab species. There are no known occurrences of Japanese Kelp or Northern Pacific Seastar in the sanctuary. However, Japanese Kelp was observed and removed from Western Port (Parry & Cohen 2001), and Northern Pacific Seastar is abundant in Port Phillip, west of the sanctuary, and was detected at Inverloch (approximately 60 km east of the sanctuary) in 2004.

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 Act. Victoria's management priorities in relation to marine pests are set out in an 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 a coordinated regional or national response. The early detection and rapid response of removing immature *Undaria pinnatifida* sporophytes growing near Flinders pier was successful preventing its spread into Western Port (Parry & Cohen 2001). However, experience elsewhere has shown that proposals to control established marine pests may not be successful and 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 exacerbation of the pest problem, control measures will need to be part of authorised programs. In some cases, further nationally coordinated 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 Fisheries 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 sanctuary (section 8.2).

### **Aims**

- Minimise the risk of introduction of marine pests by human activities, and their subsequent establishment 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 statewide 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 and methods of preventing their spread.*
- *Encourage and support Friends and community groups such as Reef Watch, Sea Search, researchers, licensed tour operators and contractors to integrate the identification of marine pests into their activities and to watch for and report marine pests in the sanctuary.*
- *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.*

- *Manage all pest incursions in accordance with the Interim Victorian Protocol (NRE 1999b) (section 8.3).*
- *Establish an ongoing program to minimise the risk of marine pest introduction and subsequent spread that addresses improving the understanding of the potential means of introduction and spread and formalising arrangements for prevention, reporting, monitoring and response.*
- *Undertake 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.*
- *Avoid translocation or new introductions by promoting boat-cleaning protocols for all recreational boats and contractors (section 6.4) 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).*
- *Support DSE programs that encourage community cooperation in avoiding the translocation of marine pests at the local level.*
- *Encourage recreational divers to adopt protocols to ensure that diving equipment is clean (section 6.4).*
- *Include boat-cleaning protocols in contracts, licences or permits of contracted vessels, research vessels and licensed tour operator vessels operating in the sanctuary.*
- *Ensure that any new marine infrastructure within the sanctuary is treated to remove any marine pests.*

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## 5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

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### 5.1 Indigenous cultural heritage

Indigenous communities have inhabited the Mornington Peninsula and Western Port regions for around 40 000 years and have a significant ongoing relationship with the sanctuary. The importance of the Bass Strait coastline, including Mushroom Reef Marine Sanctuary, to Indigenous communities, is demonstrated by a density of Aboriginal sites that is among the highest on the Mornington Peninsula.

The *Country* of Boonwurrung people includes the coastal areas between Werribee River and Tarwin River in South Gippsland. The Boonwurrung people lived as hunters and gatherers. Seasonal changes in the availability of food and shelter influenced where they travelled and set up camp. The sanctuary was an important landmark for the Boonwurrung people.

The Burinyung-Bulluk, one of the six clans that made up the Boonwurrung people, inhabited the coastal area from Point Nepean to Hastings, which incorporates the sanctuary area. The reefs and waters of this coast provided excellent sites for gathering shellfish and hunting fish and seals, and were among the most important sources of food for Boonwurrung people.

An archaeological survey of the Mornington Peninsula National Park undertaken in 1998 (Luebbers 1998) demonstrated the past use of Flinders Ocean Beach and reefs, including those within the sanctuary, by Indigenous people. Three shell middens occur close to, but outside, the sanctuary, and Luebbers reported a stone fish trap in the sanctuary's intertidal reefs (E. Lucas pers. comm.). The existence of fish traps is based on oral account by Eric Lucas, a non-Aboriginal long-term resident of Flinders. It is likely that other culturally significant sites exist within the sanctuary. Minimal information is recorded about the Indigenous cultural heritage of the sanctuary.

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 in accordance with the legislation. Currently the consent powers under the Commonwealth Act are exercised directly by the State Minister for Aboriginal Affairs as the area including the sanctuary does not have a scheduled Aboriginal community. Aboriginal Affairs Victoria is to be contacted in relation to cultural heritage matters in the sanctuary (section 8.3).

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

Parks Victoria respects the views of the Traditional Owners and seeks to reflect their knowledge, interests, rights and aspirations for *Country* in planning and management of the sanctuary (Parks Victoria 2005a).

#### Aims

- Protect Indigenous places and objects from interference or damaging activities.
- Support the views of the Traditional Owners in managing the sanctuary.

#### Management strategies

- *Protect Indigenous places and objects from disturbance and damage, in partnership with the Traditional Owners, cooperation with any scheduled Aboriginal community and AAV (section 8.3), and accordance with:*
  - *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 (Parks Victoria 2002a).*
- *Ensure that all management actions are in accordance with the Native Title Act.*
- *Respect the views of the Traditional Owners and the cultural obligations of Indigenous communities.*



- *Reflect the Traditional Owners' knowledge, interests, rights and aspirations for Country in all planning and management of the sanctuary in consultation the Traditional Owners and any scheduled Aboriginal community, and in accordance with Parks Victoria's operational policies (sections 4.1, 4.4, 4.5, 6.1, 7.1 and 8.2).*
- *Assess annual sanctuary programs to integrate relevant Indigenous practices and minimise the potential for impact of sanctuary management activities on Indigenous cultural heritage, in consultation with the Traditional Owners, and any scheduled Aboriginal community.*
- *Maintain confidentiality in respect of Indigenous cultural obligations, knowledge, places, objects and aspirations, in accordance with the views of the Traditional Owners (sections 6.1 and 8.2).*
- *Where appropriate, encourage research into the Indigenous cultural heritage relating to the sanctuary in collaboration with the relevant Indigenous communities and in liaison with AAV (section 8.3). Use the results to target protection and other management activities (sections 6.1, 6.2, 7.1 and 7.2).*
- *Work with the Traditional Owners to assess and identify Indigenous cultural heritage suitable for promotion and interpretation (sections 6.1 and 8.2).*

## **5.2 Maritime and other cultural heritage**

The coast and waters in and around the sanctuary have been used by European settlers since the early 19th century, predominantly for maritime purposes. Settlers found the sanctuary to be a valuable area for fishing and sealing, as had the Boonwurrung people before them. Whaling was a significant industry in the waters of Bass Strait from the early 1800s and is also likely to have occurred in and around the sanctuary. There are no registered historic sites within the sanctuary, however there are some historic features close to the sanctuary's boundaries. Two limestone caves in the cliffs adjacent to the sanctuary in the Mornington Peninsula National Park are likely to contain

evidence of the earliest phase of European settlement at Flinders, which was associated with sealing and whaling (Luebbers 1998). There is an oral history of the shipwreck of the *Bismarck* in 1901 on a subtidal reef now known as Bismarck Reef, adjacent to the sanctuary's southern boundary (E. Lucas pers. comm.).

The township of Flinders was settled in the 1850s to service establishing farming and fishing industries.

West Head, the prominent headland east of the sanctuary, has a long association with military use. West Head was the site of a gun emplacement during World War 1 and was used by the Australian Army until 1956, when it was commissioned to the Royal Australian Navy for use as a gunnery range.

The sanctuary has been used as a site for marine research for many years and is significant to educators for its value to marine science and education.

Flinders Ocean Beach became a popular place for beach camping, swimming and golf in the early 1900s, and has ongoing social and cultural value as a place for passive recreation and marine research.

### **Aims**

- Conserve places of historic significance.
- Encourage learning and understanding about historic heritage of the sanctuary.

### **Management strategies**

- *Document the history of past uses and activities in the sanctuary and adjoining coastal area.*
- *Protect any significant historical places or objects that are found from damaging or inappropriate activities.*
- *Include aspects of maritime cultural heritage in information, interpretation and education programs developed for the sanctuary.*

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## 6 STRATEGIES FOR VISITORS

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### 6.1 Information, education and interpretation

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 natural and cultural values, build the 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, Park Notes, signage, tourism brochures and other publications, and displays. These services may be developed and provided in collaboration with other agencies and licensed tour operators.

The sanctuary presents an excellent opportunity to communicate to visitors and the broader community the benefits of the statewide system of marine protected areas as well as the outstanding features and values of the sanctuary itself. Information, interpretation and education aims to enrich visitors' understanding of sanctuary values and evoke a relationship between visitors and the sanctuary. It is most effectively delivered in a natural environment to better engage visitors' senses and is particularly valuable in marine sanctuaries and marine national parks where most habitats, flora and fauna are underwater and less easily observed.

Pre-visit information is supplied to visitors before they enter the sanctuary primarily to inform them of the purpose of the sanctuary, its location and boundaries, and to familiarise them with safe, legal and appropriate behaviours within a marine sanctuary. Pre-visit information, including a Park Note on the sanctuary, is available on the Parks Victoria's website, the Parks Victoria office at Rosebud, accredited tourist information centres at Dromana and Point Nepean, and at Flinders General Store. There is scope for the development of other forms of ex-situ information, interpretation and education. For example, The Friends of Barwon Bluff Marine Sanctuary have developed a CD titled 'Living

on the Edge' which provides an interactive inventory of the Barwon Bluff Marine Sanctuary at Barwon Heads. The CD is proving to be an outstanding communication tool and would complement the existing Park Note.

Orientation and interpretive panels and totems along access routes to the sanctuary at Ocean Beach Car Park and West Head Lookout convey information on the sanctuary's location and boundaries, and some general information on its natural values, recreational opportunities, and visitor safety and regulatory requirements. Signage for the sanctuary needs to be integrated with that provided in the Mornington Peninsula National Park, along access routes (section 6.2).

Visitors' appreciation and awareness of sanctuary values, and of the significance and profile of the sanctuary, could be enhanced by the provision of more detailed information on sanctuary values, and threats to values, on the existing panels, and the installation of additional interpretive panels and entrance signage at other access points to the sanctuary. Interpretation and education in the sanctuary will be more effective and efficient if focused on its characteristic values.

The way information about the sanctuary is delivered is crucial to the quality of visitors' experiences. Orientation and interpretive signs can easily detract from the quality of the landscape and seascape if there are too many or they are not carefully designed and located.

Unlike interpretation, education activities are usually part of an organised element of a school curriculum or university program. The sanctuary has a long history as a venue for learning about Victoria's marine environment. For some schools it is a treasured resource because of its accessibility from Melbourne and the Mornington Peninsula, and its unsurpassed diversity in a small area (section 6.3). Rangers organise interpretive activities for community and school groups on request. Coast Action / Coastcare offers school holiday, community and summer activity programs within the sanctuary.

Trampling from rockpool rambling and intertidal activities has the potential to threaten sensitive intertidal communities if visitor numbers, access and activities are not carefully managed (section 6.3). Visitors need to be aware of the sanctuary's values, organised activities by schools and universities need to be properly supervised, and the level of use must be balanced to protect values.

To minimise visitor impacts, Parks Victoria has developed minimal impact guidelines (Parks Victoria 2003d) in partnership with providers of education to help manage these activities (available on the Parks Victoria website, [www.parkweb.vic.gov.au](http://www.parkweb.vic.gov.au)). Parks Victoria is working with the Department of Education to encourage schools to notify Parks Victoria (tel. 13 1963) of intended school group visits. Prior notification will enable teachers to obtain relevant education materials and advice on suitable sites, and help Parks Victoria to monitor the number and timing of visits.

#### Aims

- Promote and encourage visitors to discover, enjoy and appreciate the sanctuary's natural and cultural values in a safe and appropriate manner through information, interpretation and education.
- Encourage public support for the sanctuary and the sanctuary's management practices.

#### 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 8.1).*
- *Develop and deliver interpretation, information and education related to the following themes for the sanctuary:*
  - *geological significance (section 4.1)*
  - *diversity of marine habitats, flora and fauna (section 4.4)*
  - *migratory shorebirds (section 4.4)*
  - *marine pests (section 4.6)*
  - *Indigenous cultural heritage (section 5.1)*
- *history of education and research (sections 5.2 and 4.4)*
- *sensitivity of values and importance of minimising impacts (section 6.3).*
- *Develop and implement a signage plan, in cooperation with the Bass Park Trust and Mornington Peninsula Shire, that will:*
  - *effectively orientate sanctuary visitors and provide them with interpretive and educative information*
  - *provide an integrated approach to signage requirements along the access route to the sanctuary (section 6.2)*
  - *help minimise impacts on the coastal landscape (section 4.5).*
- *Develop and use stimulating and innovative approaches, and appropriate media, in presenting interpretive and educational messages.*
- *Develop opportunities to discover, experience, and understand the sanctuary's natural and cultural values where practicable.*
- *Promote greater public understanding and appreciation of, and respect for, Indigenous culture by incorporating information about Indigenous culture, places and objects in information, interpretation and education programs, in collaboration and accordance with the views of the Traditional Owners (sections 5.1 and 8.2).*
- *Provide appropriate opportunities and encourage and support Indigenous communities to participate in the interpretation of Indigenous cultural heritage relating to the sanctuary, with the agreement of the Traditional Owners (section 8.2).*
- *Use Indigenous language for natural features, plants and animals in interpretive material and signs.*
- *Continue to permit the sustainable use of the sanctuary for education by universities, schools and community groups. Encourage groups whose programs do not rely on the sanctuary's special values to implement their programs in less sensitive marine environments (sections 4.4 and 6.7).*

- *Promote the need for school and community groups to notify Parks Victoria (on 13 1963) of intended school group visits.*
- *Include messages to advise visitors of sanctuary values, and the damage that visitor activities can cause to them, in pre-visit and orientation information, and in interpretation and education programs (section 6.3).*
- *Investigate the development of computer-based educational material to enhance on-site and off-site interpretive and educational services.*
- *Continue, in conjunction with Fisheries Victoria, to achieve voluntary compliance with regulatory requirements through land and water based patrols and information, and interpretive and educative materials, and if necessary, enforcement.*
- *Work in partnership with accredited information centres and other local outlets to ensure that up-to-date information, interpretation and educational material is available.*
- *Regularly evaluate information and interpretation services and facilities related to the sanctuary, and adjust them in accordance with changes in the information and interpretation environment (sections 8.2 and 8.3).*

## 6.2 Access

The sanctuary is an easy day trip from Melbourne and the Mornington Peninsula. It is accessed via three carparks in the Mornington Peninsula National Park along Golf Links Road.

Most visitors access the sanctuary from two car parks 300 m west of the sanctuary's eastern boundary, via a short sandy track and a staircase close to the main reef platform (figure 2). The sanctuary can also be accessed from the West Head car park, 150 m from the sanctuary's eastern boundary, via a stairway and sandy access track and from the beach via King Street west of the sanctuary. There is no pram or disabled access to the sanctuary.

At low tide the distinctive mushroom-shaped intertidal area is exposed, providing easy

access from the beach to the platform and the offshore reefs.

Although the sanctuary is accessible by boat, few people visit the sanctuary this way because the shallow waters and subtidal reef systems limit access for vessels (section 6.4). Boat launching within the sanctuary is not encouraged because unpredictable open ocean conditions and the shallow rocky intertidal shoreline and reef systems make launching and landing hazardous, and disembarking visitors would disturb shorebirds. The nearest boat launching facilities to the sanctuary are a ramp near Flinders Pier and a ramp at Stony Point.

### Aim

- Facilitate access to the sanctuary while minimising the impact on natural and cultural values of the sanctuary and abutting natural areas.

### Management strategies

- *Promote access to the sanctuary only via designated tracks (section 6.1).*
- *Encourage vessel operators to launch and land vessels, including canoes, outside the sanctuary at the ramps near Flinders Pier and Stony Point.*
- *Liaise with Mornington Peninsula Shire and Bass Strait Trust in the management of access points and nearby car parking areas to integrate access, present consistent messages, and minimise the impact of access on the natural and cultural values of the sanctuary.*
- *Liaise with the managers of local boat-launching facilities to ensure appropriate access to the sanctuary.*
- *Investigate the adequacy of access facilities and the possibility of improving their presentation, particularly car parking areas in the abutting strip of Mornington Peninsula National Park (section 7.2).*

## 6.3 Intertidal activities

The intertidal area of the sanctuary has long been popular as a venue for research and education (sections 6.1 and 6.7), and for rockpool rambling by day-trippers. The sanctuary's easy access and offshore platforms

and reefs provide excellent opportunities for observing a very diverse marine environment (sections 6.2 and 6.4). During summer the sanctuary's sandy beaches and intertidal areas are also popular for swimming at high tide, and for wading, paddling, fossicking and sunbathing at low tide.

The high and increasing levels of trampling and fossicking on intertidal areas associated with shore-based activities could lead to significant damage to fauna and flora, and at some sites a reduction in biodiversity and reef habitats (Povey & Keogh 1991) (section 4.4). Local residents who frequent the sanctuary regularly have reported, in particular, a decline in the abundance and diversity of invertebrates in the intertidal area in recent years (W. Sasse pers. comm.). Impacts from visitor activities are most evident on the most frequently exposed sections of the intertidal platform, the causeway and the eastern section of platform.

Visitors, groups, schools and educational marine tours should adopt minimal impact practices in the sanctuary. Minimal Impact Guidelines (Parks Victoria 2003d) (available on the Parks Victoria 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 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**

- Encourage the exploration and enjoyment of intertidal platform habitats within the sanctuary while minimising impacts on natural and cultural values.

#### **Management strategies**

- *Permit shore-based intertidal activities in accordance with table 1.*
- *Integrate minimal impact messages for intertidal areas into existing information, interpretation and education programs to inform visitors of sensitive sanctuary*

*values, the vulnerability of intertidal habitats and communities and promote greater appreciation of intertidal marine organisms before they enter the sanctuary (section 6.1).*

- *Manage shore-based activities to reduce impacts on the intertidal habitats and communities and minimise damage associated with trampling by:*
  - *adherence to Parks Victoria's minimal impact guidelines*
  - *voluntary protocols (e.g. booking systems) for visitors, educational institutions and other organised groups*
  - *ensuring that all organised groups are properly supervised*
  - *ensuring that tour operators meet permit conditions*
  - *undertaking regular patrols during popular periods and times to encourage appropriate visitor use.*
- *Continue to permit sustainable education use that relies on the special values of the sanctuary, by schools, universities and licensed tour operators.*
- *Reduce impacts on intertidal habitats and communities particularly from trampling during educational use by school and other groups, by ensuring that:*
  - *students are adequately supervised while in the sanctuary*
  - *school groups do not exceed class sizes (maximum 30 participants per leader)*
  - *formal interpretation and other groups do not exceed 25 participants per leader*
  - *groups using the sanctuary vary their location to reduce pressure, especially during high use periods and low spring tides.*
- *Encourage organisations that carry out research, education or recreation activities that do not rely on the special values of the sanctuary to use suitable locations elsewhere (e.g. Honeysuckle Reef at Shoreham).*

- *Minimise disturbance to seabirds and shorebirds by encouraging visitors to avoid roosting and feeding habitats.*
- *Encourage and support the development of ex-situ educational tools similar to the 'Living on the Edge' CD (section 6.1).*
- *Encourage research into the impacts of intertidal trampling on intertidal communities with a view to determining an appropriate carrying capacity for the site.*
- *Monitor and annually review visitor impacts on the intertidal zone. Investigate and implement strategies as necessary to arrest further declines in flora or fauna populations relating to human activities.*

#### **6.4 Snorkelling and diving**

Snorkelling and scuba diving enable visitors to experience underwater environments and view species and habitats that are difficult to observe from above the surface, particularly smaller or cryptic animals such as seahorses, pipefish, sea urchins, nudibranchs, sponges, octopuses and cuttlefish.

The sanctuary provides excellent opportunities for underwater diving around spectacular subtidal reefs which are easily accessed from the shore at low tide across the causeway. The intertidal reefs can be snorkelled at high tide. Scuba diving and snorkelling in the sanctuary can also be undertaken with licensed tour operators (section 6.7).

The provision of off-site information can guide and enhance diver experiences (section 6.1). The prohibition on new infrastructure within the sanctuary and the potential for repetitive long-term damage to sensitive natural values make the sanctuary an unsuitable site for development of an underwater diving or snorkelling trail.

Current levels of snorkelling and diving are not known to be causing unacceptable impacts on the sanctuary. The potential for damage to natural and cultural values will be minimised if snorkellers and divers are well informed about the sanctuary's natural and cultural values, have a clear understanding of the impacts their activities may have on values, particularly over time, and comply with minimal impact practices and codes of practice. Potential impacts from diving include intertidal

trampling, wildlife disturbance, illegal removal of flora and fauna, and anchor damage (section 6.3).

Divers and snorkellers need to be aware of potential dangers, particularly from strong currents and vessels (section 6.8). To ensure diver safety, divers should refer to the Scuba Divers Federation of Victoria's *Codes of Practice* (SDFV 2005).

Because diving and snorkelling equipment can be a vector for marine pests, it should be thoroughly cleaned and dried before being used in the sanctuary (section 4.6).

Divers and snorkellers need to be aware of the no-fishing provisions in the sanctuary and can assist in preventing the spread of and early detection of marine pests and the detection of unrecorded cultural places and objects (sections 4.6 and 8.2).

#### **Aim**

- Encourage snorkelling and diving activities that are for enjoyment and understanding of the sanctuary and have minimal impact on natural or cultural values.

#### **Management strategies**

- *Promote the sanctuary as a nature-based underwater recreational destination (section 6.1).*
- *Liase with diving groups and individuals to encourage appropriate use of and access to the sanctuary.*
- *Promote compliance of snorkellers and recreational scuba divers with relevant codes of practice and Adventure Activity Standards (section 6.7).*
- *Provide off-site information and signage to guide divers and snorkellers to suitable areas and underwater routes in the sanctuary.*
- *Support dive clubs and industry representatives to develop a code of practice that promotes environmentally responsible diving practices.*

#### **6.5 Dog walking**

The sanctuary is reserved and managed under the National Parks Act (section 2.5). Under the

Act and National Park (Park) Regulations 2003 a person must not bring a dog into the sanctuary or allow it to remain in the sanctuary, except when it is confined to a vessel.

There are excellent opportunities for walking dogs on and off a leash near the sanctuary. Dogs are permitted on leash between dawn and 9.00 am on the beach abutting the sanctuary in the Mornington Peninsula National Park (Parks Victoria 1998). Dogs are also permitted under effective control on the beach between Dodds Creek and Manton Creek, and in an area of the B.A. Cairns Recreation Reserve.

The beach in and around the sanctuary contains important feeding, roosting and nesting sites for shorebirds and seabirds, including seven threatened species (section 4.4). Dogs can have serious impacts on bird populations and other wildlife (Kirby et al. 1993). They are known to be highly disturbing to breeding birds, and to chase and kill individual birds and accidentally crush nests (Weston 2003).

There have been several reported incidences of dogs chasing shorebirds from their roosts on the beach in the sanctuary, disturbing local and migratory wader birds from feeding and roosting and reports of visitors with dogs in and around the sanctuary after 9.00 am and dogs off leash (P. Johns pers. comm.). Surfers are also sometimes accompanied by dogs (section 6.6).

The presence of dogs and dog excrement in the sanctuary is a source of distress to some visitors. Many visitors object to dogs being in the sanctuary on the grounds that they are not part of the natural environment and make wildlife more difficult to observe.

On the ground, the boundary shared by sanctuary and the national park is not apparent and it may be very difficult to communicate, comply with and enforce regulations relating to dogs.

Excluding dogs from a small section of the national park abutting the sanctuary would enhance the effectiveness of excluding them from the sanctuary and improve the habitat values of the sanctuary and surrounds for seabirds and shorebirds (figure 2). In particular, excluding dogs in the national park

between King Street beach access and the small headland approximately 150 m east of the sanctuary's eastern boundary would create a clearly defined and feasibly enforceable dog-free area.

#### **Aim**

- Protect natural and cultural values, and visitor enjoyment from the impacts of dogs.

#### **Management strategies**

- *Continue to exclude dogs from the sanctuary except where confined to a vessel.*
- *Develop and implement an ongoing education strategy on the impact of dogs on the natural environment (especially birds), the benefits of responsible dog ownership and the locations near the sanctuary where dogs are permitted, through Park Notes, information signs and ranger patrols (section 6.1).*
- *Liaise with the local community and Mornington Peninsula Shire to enhance community understanding of the impacts of dogs on sanctuary values and to include reference to the sanctuary in Shire literature regarding responsible pet ownership.*
- *Monitor the activities of surfers in the sanctuary and nearby areas. Liaise and collaborate with the Peninsula Board Riders Association to educate surfers about the impacts of dogs on sanctuary values, sanctuary regulations relating to dogs, and the reasons for excluding dogs from the sanctuary. Take further action as necessary to protect sanctuary values and enjoyment of visitors.*
- *Seek a review of the management of dogs in sections of national park abutting the sanctuary to support the achievement of an appropriate level of protection for the natural, cultural and social values of the sanctuary.*

#### **6.6 Other activities**

Hang gliders and paragliders are permitted to fly over the sanctuary and land on the beach within the sanctuary. These aircraft are

launched from a platform in Mornington Peninsula National Park abutting the sanctuary.

Under certain conditions surfing is a popular activity around the sanctuary. Surfers mostly access surf within and around the sanctuary from the West Head and King Street car parks and also occasionally use the ‘lower’ Ocean Beach car park (figure 2).

Current activities of surfers, hang gliders and paragliders do not appear to threaten sanctuary values or other visitors’ enjoyment, except for surfers who bring dogs into the sanctuary and leave them on the beach to guard their property (section 6.5).

The submerged rocks and extensive reef platforms which are exposed at low tide and open ocean conditions make the sanctuary an unsuitable location for boating (section 6.2). 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’. All boating activities, including kayaking and canoeing, are subject to the *Marine Act 1988* (Vic.). As in all Victorian coastal waters, a speed limit of five knots applies in the sanctuary (MSV 2005) within:

- 50 m of a swimmer
- 100 m of a vessel or buoy with a diver below signal
- 200 m of the shoreline
- 300 m of a whale or dolphin.

Under certain conditions wind-surfers and kite-surfers use the sanctuary. The shallow reefs and platforms of the sanctuary are not indicated by navigational marks and may pose a hazard to recreational vessel operators (section 6.8). Propeller scarring has the potential to damage encrusting communities on reefs (section 4.4). The operation of powered vessels in the sanctuary’s shallow rocky environment can place the safety of vessel operators and snorkellers and divers at risk (section 6.8).

#### **Aim**

- Permit activities, including the landing of hang gliders and paragliders in the

sanctuary that have minimal impact on natural or cultural values and the enjoyment of other visitors.

#### **Management strategies**

- *Permit boating and surface water sports in the sanctuary in accordance with table 1.*
- *Encourage vessel operators to use areas outside the sanctuary, to increase vessel operator safety and protect the natural values of the sanctuary.*
- *Develop and install signage at the hang-glider launch platform that informs hang gliders and paragliders of regulations within the sanctuary.*
- *Monitor hang gliding, paragliding, wind-surfing and kite-boarding activities in the sanctuary and nearby areas, liaise with Victorian Hang-gliding Association and other associations, and take action as necessary to avoid impact from these activities on sanctuary values and the enjoyment of other visitors.*

#### **6.7 Tourism services**

Licensed tour operators play a key role in nature-based tourism in Victoria by offering guided tours and supported recreation activities, and information that promotes sanctuary values and appropriate use.

Currently two tour operators are licensed to conduct snorkelling and diving tours in the sanctuary. Further opportunities exist for licensed tour operators to conduct underwater recreation and interpretation. To protect sanctuary values from excessive trampling and fossicking, tourism activities that do not rely on the sanctuary’s special values are not encouraged (section 6.1).

Activities run by licensed tour operators are managed under a permit system. Permits may specify 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 2002). To ensure diver safety, licensed tour operators providing diving activities should also refer to the Dive Industry Victoria Association’s *Code of Practice* (DIVA 2004) and the relevant



Adventure Activity Standards (ORC 2004) (section 6.4).

In administering the tour operator licensing system, Parks Victoria collaborates with Tourism Alliance Victoria, a membership-based industry association providing a representative and professional development role for tourism businesses.

### Aim

- Encourage the promotion and interpretation of the sanctuary and its values by licensed tour operators in a manner consistent with the aims for the sanctuary and visitor safety.

### Management strategies

- *Ensure that all tour operators using the sanctuary are licensed and promote awareness of Adventure Activity Standards and Minimal Impact Guidelines.*
- *Encourage licensed tour operators to provide a range of activities. Ensure that activities, numbers of visitors and sites used are appropriate (sections 6.1 and 6.4).*
- *Encourage tour operators to develop guided tours to enhance the sanctuary experience of visitors (sections 6.1 and 8.2). Give particular encouragement to the development of interpretive and educational tours relating to the sanctuary's Indigenous cultural heritage (sections 5.1 and 6.1).*
- *Encourage the development and delivery of tours relating to Indigenous cultural heritage by or with the involvement of Indigenous people, and with the agreement of the Traditional Owners.*
- *Monitor the effectiveness of tourism services in contributing to the objects of the National Parks Act.*
- *Promote the use of licensed tour operators to enhance and maintain visitor safety.*
- *Continue to work with licensed tour operators and the tourism industry to assist with the delivery of appropriate sanctuary information (section 6.1).*

## 6.8 Public safety

Some activities undertaken in the natural environment can pose inherent risks to visitors. The risk is increased if visitors are not familiar with the local environment, prevailing weather conditions and tidal height. Visitors need to be aware of safety risks to ensure that they enjoy a safe visit.

The intertidal area is very popular with visitors. Potential dangers for land-based activities or intertidal rock rambling include slippery and unstable rocks and boulders, broken glass and rubbish, venomous fauna and large waves. Visitors need to monitor weather and tide conditions, wear appropriate footwear and ensure adequate protection from the sun and wind.

A survey of Victorian beaches in 1996 rated their safety as being in one of four hazard categories; safest, moderately safe, low safety and least safe (Short 1996). The beach in the sanctuary is rated as moderately safe and is not patrolled. Visitors should exercise caution while swimming in the sanctuary and need to be aware of any hazardous conditions for swimming, including strong currents, rocks, large waves and vessels. The nearest patrolled swimming beaches are at Gunnamatta and Point Leo.

While the underwater environment of the sanctuary has great appeal, snorkellers and divers need to be aware of the unpredictable nature of the marine environment and should only undertake activities within their capabilities, under appropriate conditions. Risks associated with snorkelling and diving in the sanctuary include strong currents, large waves, venomous marine animals, vessels, and exposure to cold.

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. Under the Marine Act, a flag indicating 'diver below' must be displayed when scuba divers are in the water. Snorkellers should also adopt this practice when snorkelling, to increase their visibility and safety (section 6.4). 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, Park Notes and ranger patrols.

Boating activities undertaken in the sanctuary can pose inherent risks to visitors. Vessel operators need to be aware of the changing weather conditions, tidal height and the local environment as well as other vessels, and users, particularly those in the water. Any person operating a powered recreational vessel in Victorian waters must have a current licence. Recreational boating accidents are highest in Victoria during summer, and most fatalities are associated with recreational vessels less than 8 m in length (Bugeja 2003).

Marine Safety Victoria conducts safety and awareness programs for recreational boat users, and its *Victorian Recreational Boating Safety Handbook* contains safety information and outlines the requirements for operating a recreational vessel in Victoria (MSV 2005) (section 6.6).

The responsibilities for responding to emergency incidents in Victoria and Victorian waters are outlined in the *Emergency Management Act 1986* (Vic.). Parks Victoria is not the lead agency for most emergency response situations. Instead, it supports other agencies, including the Department of Sustainability and Environment, Marine Safety Victoria, the Country Fire Authority, the State Emergency Service and Victoria Police, in responding to 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 Emergency Management Plan for Mornington Peninsula National Park (Parks Victoria 2005b).

### **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**

- *Increase visitors' awareness of safety issues and potential hazards in the sanctuary through Park Notes, information signs (section 6.1) and Parks Victoria's website and information service.*
- *Provide and maintain safety and information signage at key locations in the sanctuary and the Mornington Peninsula National Park (section 6.1).*
- *Cooperate with and support responsible agencies in emergency response and ensure that Parks Victoria staff have adequate levels of training in emergency procedures.*
- *Update the Mornington Peninsula National Park Emergency Management Plan to also address adequate provision for likely incidents in the sanctuary.*
- *Liaise with Mornington Peninsula Shire to ensure that the Municipal Emergency Response Plan makes adequate provision for likely incidents in the sanctuary.*
- *Consult with adjacent land managers to coordinate risk-related signage along the shore adjacent to the sanctuary (section 6.1).*

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## 7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

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### 7.1 Authorised uses

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

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 seismic testing from an aircraft or from a vessel, that is carried out in a manner which does not detrimentally affect the seabed or any flora or fauna of the sanctuary may be allowed with the consent of the Minister. However, the Government has announced that it will not release any further areas in Victoria that contain marine national parks or marine sanctuaries for petroleum exploration. There is no petroleum exploration permit over the sanctuary. The construction of pipelines or laying of seafloor cables is prohibited in any part of the sanctuary.

Protected areas are generally avoided as locations for Defence Force training exercises, although they occasionally host search and rescue, field navigation and incident response activities. Activities are subject to a permit with conditions to ensure that values of the sanctuary are protected.

All research and monitoring planned in a Marine National Park or Marine Sanctuary by external organisations or individuals requires a research permit under the National Parks Act, issued by the DSE.

Parks Victoria recognises the significant role that the filming and photography industry plays in the social and economic well-being of the community, and in providing for these activities seeks to ensure protection of the natural and cultural values of the sanctuary. A permit is required 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.

### Aim

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

### Management strategies

- *Review all uses of the sanctuary that do not conform with the objectives of the National Parks Act. 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.*
- *Monitor authorised activities to ensure that conditions of authorisations are met. Assess the effectiveness of conditions of authorisations in protecting the sanctuary and review authorisations, if necessary, to arrest impacts.*
- *Permit Defence Force adventure training or field navigation exercises in the sanctuary in accordance with Parks Victoria's operational policies and relevant permit conditions.*

### 7.2 Boundaries and adjacent uses

The shore (northern) boundary of the sanctuary is the mean high water mark. The eastern and western boundaries are aligned at right angles to the shore. The alignment of the eastern and western boundaries is indicated by two yellow triangle boundary markers on the foreshore in Mornington Peninsula National Park.

The offshore boundary would be easier to identify and regulate if it were marked (section 6.1). However, buoys or pile markers placed in the sea are likely to be dislodged in strong seas and become a navigational hazard to vessels.

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 1978* (Vic.) 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).

Commercial abalone diving occurs on reefs along the Mornington Peninsula, in particular Bismarck Reef approximately 100 metres south of the sanctuary's southern boundary (section 1.1). Commercial and recreational fishing of rock lobster, abalone and wrasse occur on reefs and waters adjacent to the sanctuary but are prohibited in the sanctuary (section 2.5).

The Royal Australian Navy has used the gunnery range on West Head for live firing training since 1956. The range is outside the sanctuary, but rounds fired in accordance with guidelines could fall in the sanctuary. Any impacts on the sanctuary are not readily apparent but have not been investigated.

The foreshore adjacent to the sanctuary is part of Mornington Peninsula National Park, which is reserved under the National Parks Act and managed by Parks Victoria. The park vision and management are generally consistent with those of the sanctuary, although dogs are permitted in the park abutting the sanctuary under certain conditions and may threaten the sanctuary's values (section 6.5). Prior to the proclamation of the sanctuary in 2002, dogs were also allowed on the beach above the low water mark, which was part of the park but is now part of the sanctuary.

Hang gliders and paragliders are launched from a platform in the abutting strip of Mornington Peninsula National Park and may fly over and land in the sanctuary (section 6.6).

The Flinders Golf Course provides a buffer between the Mornington Peninsula National Park and the residential areas within the township of Flinders. The Golf Course forms part of Bass Park, which is managed by the Bass Park Trust.

The Mornington Peninsula Planning Scheme (MPS 2002) provides a statutory framework for managing proposals and developments adjoining the sanctuary. The scheme extends to the high water mark and is administered by the Mornington Peninsula Shire. Under the scheme, the section of Mornington Peninsula National Park adjoining the sanctuary is currently zoned Public Park and Recreation (section 4.5).

Cooperation with all adjacent managers is desirable to facilitate a coordinated approach to management, especially operational matters.

#### **Aim**

- Minimise impacts on sanctuary values from adjacent uses and developments.

#### **Management strategies**

- *Maintain and if necessary improve boundary markers, signs and information about sanctuary boundaries.*
- *Integrate the management of the sanctuary and the adjacent Mornington Peninsula National Park where this will increase the achievement of aims and strategies for the protected areas (Parks Victoria 1998).*
- *Liaise with Bass Park Trust to avoid impacts on the sanctuary from management of the golf course and to integrate management with the Mornington Peninsula National Park and the sanctuary.*
- *Continue to liaise with the Mornington Peninsula Shire to:*
  - *seek amendment of the zoning of the abutting national park to Conservation and Resource Zone (section 4.5)*
  - *ensure that the sanctuary's values are considered by the Shire when assessing applications for changes in use or developments in the area adjacent to the sanctuary.*
- *Regularly observe and record any impacts of adjacent land uses, including the West Head gunnery range, hang gliding and paragliding, on the sanctuary, and take action to minimise the impacts as appropriate.*

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## 8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

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### 8.1 Community awareness

Raising the community's awareness of the sanctuary and its values is an important first step in developing the community's sense of custodianship for the sanctuary. Members of the community are more likely to develop a sense of custodianship if they become involved and their views and values are respected.

Broader public awareness and involvement follows with the development of strong sanctuary-related social networks among sanctuary staff, visitors and community participants in management. Such networks provide distribution channels for information and thus a means of raising awareness of the sanctuary in the wider community. Visitor networks among the research and naturalist communities are particularly widespread because of the sanctuary's diversity of marine values.

Education and interpretation programs play an important role in raising the awareness of the sanctuary in the wider community (section 6.1). 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.

Major entrance signage installed at strategic locations would increase the community's awareness of the sanctuary.

#### Aims

- Increase the community's awareness and understanding of the sanctuary's values and management activities.
- Build a sense of shared ownership and custodianship for the sanctuary in community groups and individuals.

#### Management strategies

- *Build broader community awareness of opportunities to make a difference to the sanctuary's management through undertaking shared responsibility and becoming directly involved in the*

*sanctuary's management e.g. host an annual forum to inform the local community about the annual work program and progress in implementing the management plan, celebrate the achievements of Friends, volunteers and other groups participating in the sanctuary's management, and share knowledge about the sanctuary.*

- *Seek opportunities to include items about sanctuary.*
- *Promote the personal benefits of assisting in sanctuary programs to community groups, in line with 'Healthy Parks Healthy People' objectives.*
- *Keep the broader community informed of the work of Friends of Flinders Coastline, Sea Search Mushroom Reef and other volunteers and community groups (section 8.2).*
- *Foster the development of sanctuary-focused community networks that can distribute information about the sanctuary.*
- *Develop a signage plan that includes major entrance signage for the sanctuary that is integrated with and enhances signage in the adjoining Mornington Peninsula National Park.*

### 8.2 Community participation

Participation of community groups and individuals in the sanctuary's management can enrich and strengthen sanctuary management and is pivotal to the effective long-term planning, use and protection of the sanctuary's values.

The Traditional Owners have considerable interest in and aspirations for the sanctuary as part of *Country*. They are an important potential source of traditional knowledge about the area that has yet to be documented. A strong working relationship with Traditional Owners will be essential to reflecting their views in the sanctuary's planning and management and reconciliation of their

interests and aspirations with those of other members of the community.

Volunteers and community groups make valuable contributions to sanctuary management projects. They bring diverse views, and valuable enthusiasm, information, knowledge, skills and experience to the sanctuary that may otherwise not be available to the sanctuary's managers. They also add valuable resources to assist with the care of the sanctuary.

The interests of community groups in the sanctuary often overlap and may or may not be complementary. There can be considerable mutual benefits where such groups work together and with Parks Victoria and the Traditional Owners to achieve common goals.

Groups that have a close association with the sanctuary include the Friends of Flinders Coastline, Sea Search Mushroom Reef, the Victorian Wader Study Group and Reef Watch.

Friends of Flinders Coastline conduct activities on the land around the sanctuary and actively promote the values of the sanctuary through community information sessions in peak visitor periods.

Sea Search Mushroom Reef was established in 2005 to study the sanctuary's unique marine environment. Members are working with Parks Victoria to systematically monitor the intertidal reefs in and around the sanctuary as part of the Victorian Intertidal Reef Monitoring Program. This will provide information on the condition of the flora and fauna in the sanctuary and how it changes over time.

The Victorian Wader Study Group has been studying seabirds and shorebirds on the beaches and intertidal area in and around the sanctuary since 1997. The group conducts surveys approximately three times per year and contributes to information sessions run by Friends of Flinders Coastline.

Reef Watch is a non-profit project developed by the Australian Marine Conservation Society and the Marine and Coastal Community Network, and is funded by the Federal and State Governments through Coast Action / Coastcare. The project calls on the voluntary assistance of Victorian divers 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.

Other 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. Coast Action / Coastcare also conducts education, training and awareness-raising programs.

Scuba divers and snorkellers can contribute to the protection of sanctuary values by identifying potential pest organisms (section 4.6).

### **Aims**

- Encourage and support the whole community, particularly Traditional Owners, in undertaking projects that contribute to or complement sanctuary programs.
- Inform, enrich and strengthen the sanctuary's management with the community's tradition, knowledge, experience, skills and enthusiasm, particularly that of the Traditional Owners.

### **Management strategies**

- *Continue to build, and strengthen and maintain relationships with the relevant Indigenous communities. In particular, seek to further develop a close inclusive working partnership with the Traditional Owners and cooperation with any scheduled Aboriginal community.*
- *Seek to maintain and strengthen relationships with Friends of Flinders Coastline, Sea Search Mushroom Reef, the Victorian Wader Study Group and other volunteers and community groups that use or have a particular interest in the sanctuary. Promote their activities and support such groups to work together with each other and Parks Victoria to achieve shared goals for the sanctuary.*
- *Liaise and cooperate as appropriate with the relevant Indigenous communities, in dealing with Indigenous cultural issues that relate to the sanctuary.*

- *Facilitate the sharing of knowledge, increasing understanding, and appreciation of aspirations and goals for the sanctuary between community groups and Parks Victoria's staff.*
- *Provide opportunities for, and encourage and support tertiary students to undertake, volunteer work experience and research activities that assist sanctuary management and are consistent with the plan.*
- *Support capacity-building initiatives through appropriate training, tools and supports which better enable volunteer participation in the planning, use and care of the sanctuary.*
- *Encourage visitors to assist with compliance management by:*
  - *reporting illegal fishing to the Fisheries Victoria offence reporting hotline*
  - *reporting other offences under the National Parks Act and regulations to Parks Victoria Rangers.*
- *Encourage and support Coast Action / Coastcare programs within the sanctuary, particularly focusing on community interpretation and education.*
- *Encourage community involvement in Sea Search, Reef Watch and other monitoring and recording programs using standard methods.*
- *Encourage and support Friends of Flinders Coastline, Sea Search Mushroom Reef and the Victorian Wader Study Group to continue to acquire knowledge of the sanctuary's values, and other interest groups and volunteers to develop an understanding and appreciation of these values and the rich and diverse cultural values, and aspirations of the Indigenous people who have a traditional association with the sanctuary.*
- *Encourage and support groups that use or have an interest in the sanctuary to work together to pursue sources of funding, including Parks Victoria grants, for projects in the sanctuary. Encourage joint grants with other 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 practicable, be consistent with agencies' policies and guidelines. To ensure this occurs, park staff must work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

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 the 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 (section 4.4), operating at the direction of DSE.

As part of agreed service delivery arrangements, Fisheries Victoria – Department of Primary Industries has primary responsibility for enforcement to ensure compliance with the fishing prohibitions under the National Parks Act. Parks Victoria will continue to collaborate with Fisheries Victoria and Victoria Police in activities such as cooperative Ranger and Fisheries officer patrols and support arrangements in accordance with the Statewide Compliance Strategy (Parks Victoria 2002b) and the Regional Compliance Plan (Parks Victoria 2003c).

The Central Coastal Board provides direction and policy advice to facilitate sustainable development of the central coast of Victoria through the implementation of the Victorian Coastal Strategy (VCC 2002). The Port Phillip and Westernport 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 (section 4.2).

The Environment Protection Authority (EPA Victoria) has the primary responsibility for environment protection of all waters in Victoria and is responsible for administering and enforcing the Environment Protection Act, including all activities relating to the discharge of litter and waste to the environment (section 4.2). EPA Victoria also develops State Environment Protection Policy (SEPP) for state waters (section 4.2).

Parks Victoria works collaboratively with Marine Safety Victoria to ensure boating safety within the sanctuary, and 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.

Marine Safety Victoria is the local authority responsible for administering the Marine Act, including planning and implementing pollution response and marine safety initiatives (sections 4.2 and 6.8). Parks Victoria works collaboratively with Marine Safety Victoria to ensure boating safety within the sanctuary.

Mornington Peninsula Shire has a key role in administering 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.

Through Aboriginal Affairs Victoria, the Department for Victorian Communities has responsibility for administering legislation protecting cultural heritage (sections 2.5 and 5.1) and advising Parks Victoria on Indigenous matters.

Heritage Victoria (DSE) is the central government agency that provides information and advice about places listed on the Victorian Heritage Register and Archaeological Inventory. It supports the Heritage Council through research, recommends additions to the register and issues permits for alterations to heritage places.

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

Victorian agencies work cooperatively with the Commonwealth Department of the Environment and Heritage on the management of regional ecosystem conservation issues.

#### **Aim**

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

#### **Management strategies**

- *Work collaboratively with all agencies to ensure their activities accord with the aims for the sanctuary and the plan. In particular, work with:*
  - *DSE regarding future planning and management, including protection of marine flora and fauna from potentially threatening processes*
  - *Fisheries Victoria to implement the fishing prohibition and the Regional Compliance Plan*
  - *Central Coastal Board on any future plans and strategies that relate to the sanctuary*
  - *Port Phillip and Westernport CMA to reduce the impacts of land use and management of the catchment on the sanctuary, and development of appropriate actions in the Regional Catchment Strategy*
  - *EPA Victoria to minimise impacts associated with discharges of waste into the environment, particularly from Double Creek*
  - *Aboriginal Affairs Victoria on compliance with the relevant cultural heritage legislation and on issues relating to Indigenous affairs*
  - *Marine Safety Victoria on planning and implementation of marine safety initiatives within the sanctuary and adjacent waters*
  - *Mornington Peninsula Shire regarding the administration of the planning scheme, including input into adjacent*



- or nearby developments that may impact on the sanctuary (section 7.2); and in encouraging responsible dog management and providing and communicating the opportunities for dog walking in the Flinders area outside the sanctuary (section 6.5)*
- *State and regional tourism authorities to promote the sanctuary appropriately in regional visitor information centres and regional tourism strategies*
  - *Royal Australian Navy in relation to the West Head Gunnery Range and issues of its operation that may affect the sanctuary.*
  - *Update contingency plans for marine pollution incidents, such as oil and chemical spills, and cetacean / wildlife incidents as required, in consultation with DSE, Toll Western Port and Marine Safety Victoria, and communicate arrangements to staff, relevant agencies and interested parties.*

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## 9 PLAN IMPLEMENTATION

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### 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 detailed actions in annual regional programs. Priorities for regional programs vary from year to year, depending on available resources and government priorities.

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 the implementation of the plan, Parks Victoria will work in partnership with the Traditional Owners and any scheduled Aboriginal community. Ongoing 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. Events such as Sanctuary 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](http://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 2003a) and State of the Parks reports, which will be available on Parks Victoria's website, 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 benefit to biodiversity.
- Compliance with no-fishing provisions and sanctuary regulations.
- Timely management intervention to minimise threats.
- Minimal impact of permitted uses.

#### Protecting cultural values

- Progress towards working with Traditional Owners in managing the sanctuary and in protecting and interpreting Indigenous cultural heritage.
- Timely management intervention to avoid damaging activities and 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.
- Improved community and visitor awareness.

#### Providing for research and promoting understanding

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

Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria partners with external research agencies to establish benchmarks and indicators for major communities and habitats. Through 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

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**Algae (seaweed)** – plant-like organisms that use light energy to create food. Unlike plants, algae are not differentiated into roots, stems and leaves.

**Aquaculture** – cultivation of fish, molluscs or other aquatic organisms in fresh or salt water.

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

**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.

**Biodiversity** – the natural diversity of all life: the sum of all 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 unique underlying environmental and ecological features.

**Bommie (bombora)** – a rocky reef over which waves break.

**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 kilometres offshore) and the land and inland waters within the coastal catchment.

**Coastline** – generally, the line along which the land meets the sea.

**Committee of Management** – a committee appointed under the *Crown Land (Reserves) Act 1978* 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.

**Coralline algae** – algae that contain calcified components. Can take a variety of forms.

**Country** – in Indigenous usage, all of nature, culture and spirituality relating to an area.

**Ctenophore** – 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.

**Crown land** – land belonging to the State.

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

**Diatom** – a microscopic unicellular alga.

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

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

**Endemic** – unique to a particular area, and not found naturally anywhere else.

**Flotsam** – in maritime law, applies to wreckage or cargo left floating on the sea after a shipwreck. The common phrase *flotsam and jetsam* is now used loosely to describe any objects found floating or washed (respectively) ashore. See also *Jetsam*.

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

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

**Gorgonian** – soft, often colourful coral fan, generally found in high-flow areas.

**Habitat** – the preferred location or 'home' of an organism.

**Heritage** – a place, activity, cultural way of life, structure or group of structures that has 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).

**Indigenous cultural heritage** – all aspects of contemporary and traditional culture, and places and objects of significance to Indigenous people in accordance with tradition.

**Indigenous people** – people who are descendants of Aboriginal Australians.

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

**Intertidal** – 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 (e.g. worms, sponges).

**Jetsam** – in maritime law, applies to cargo or equipment thrown overboard from a ship in distress and either sunk or washed ashore. The common phrase *flotsam and jetsam* is now used loosely to describe any objects found floating or washed (respectively) ashore. See also *Flotsam*.

**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 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.

**Matters of national environmental significance** – defined by the Environment Protection and Biodiversity Conservation Act to include: World Heritage Properties; Ramsar wetlands; nationally threatened species and communities; migratory species protected under international agreements; the Commonwealth marine environment; and, nuclear actions.

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

**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 slightly lower.

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

**Pelagic** – relating to the surface waters of the marine environment.

**Pest** – exotic organisms (plants, animals or pathogens) that, if introduced outside their natural or previous distribution, they 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** – small plants that drift in open water.

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

**Remnant vegetation** – remaining natural vegetation.

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

**Sedimentation** – the deposition of sediment on a surface.

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

**Sewerage** – the system that facilitates the collection, transport, treatment and discharge of sewage.

**Scheduled Aboriginal community** – body or bodies scheduled as the Local Aboriginal Community under the Aboriginal and Torres Strait Islander Heritage Protection Act relating to the sanctuary.

**Soft coral** – coral without a solid calcareous case for structure. Generally colonial and found on hard surfaces.

**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 carries accumulated material, which may include litter, soil, nutrients, pathogens, chemicals, pesticides, oils and grease.

**Submergence** – a rise of water level relative to the land so that areas formerly dry are inundated.

**Tertiary** – geological period occurring from 63 to 1.5 million years ago.

**Tombolo** – a bar or rock formation connecting an island or reef to a shore or to another island or reef.

**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 animals or plants including pests from one area to a new area.

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

**Wrack** – organic matter washed up on a beach.



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**Abbreviations**

**AAV** – Aboriginal Affairs Victoria

**ANZECC** – former Australian and New Zealand Environment and Conservation Council

**CAMBA** – China–Australia Migratory Bird Agreement

**CMA** – Catchment Management Authority

**CSIRO** – Commonwealth Scientific and Industrial Research Organisation

**CRIMP** – Centre for Research on Introduced Marine Pests

**DIVA** – Dive Industry Victoria Association

**DSE** – Department of Sustainability and Environment

**DVC** – Department of Victorian Communities

**ECC** – former Environment Conservation Council

**EPA** – Environment Protection Authority

**EMF** – Environmental Management Framework of Parks Victoria

**FFG** – Flora and Fauna Guarantee Act 1988 (Vic.)

**JAMBA** – Japan–Australia Migratory Bird Agreement

**IMCRA** – Interim Marine and Coastal Regionalisation for Australia

**IUCN** – World Conservation Union

**LCC** – Land Conservation Council

**LTO** – Licensed Tour Operator

**MSV** – Marine Safety Victoria

**NRE** – former Department of Natural Resources and Environment

**NRSMPA** – National Representative System of Marine Protected Areas

**PPWPCMA** – Port Phillip and Western Port Catchment Management Authority

**SDFV** – Scuba Divers Federation of Victoria

**SEPP** – State Environment Protection Policy

**TFMPA** – Taskforce for Marine Protected Areas

**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 Schedule 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 1975* (Vic.), refer to Victorian Acts on the Victorian Legislation and Parliamentary Documents website, [www.dms.dpc.vic.gov.au](http://www.dms.dpc.vic.gov.au).

### 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

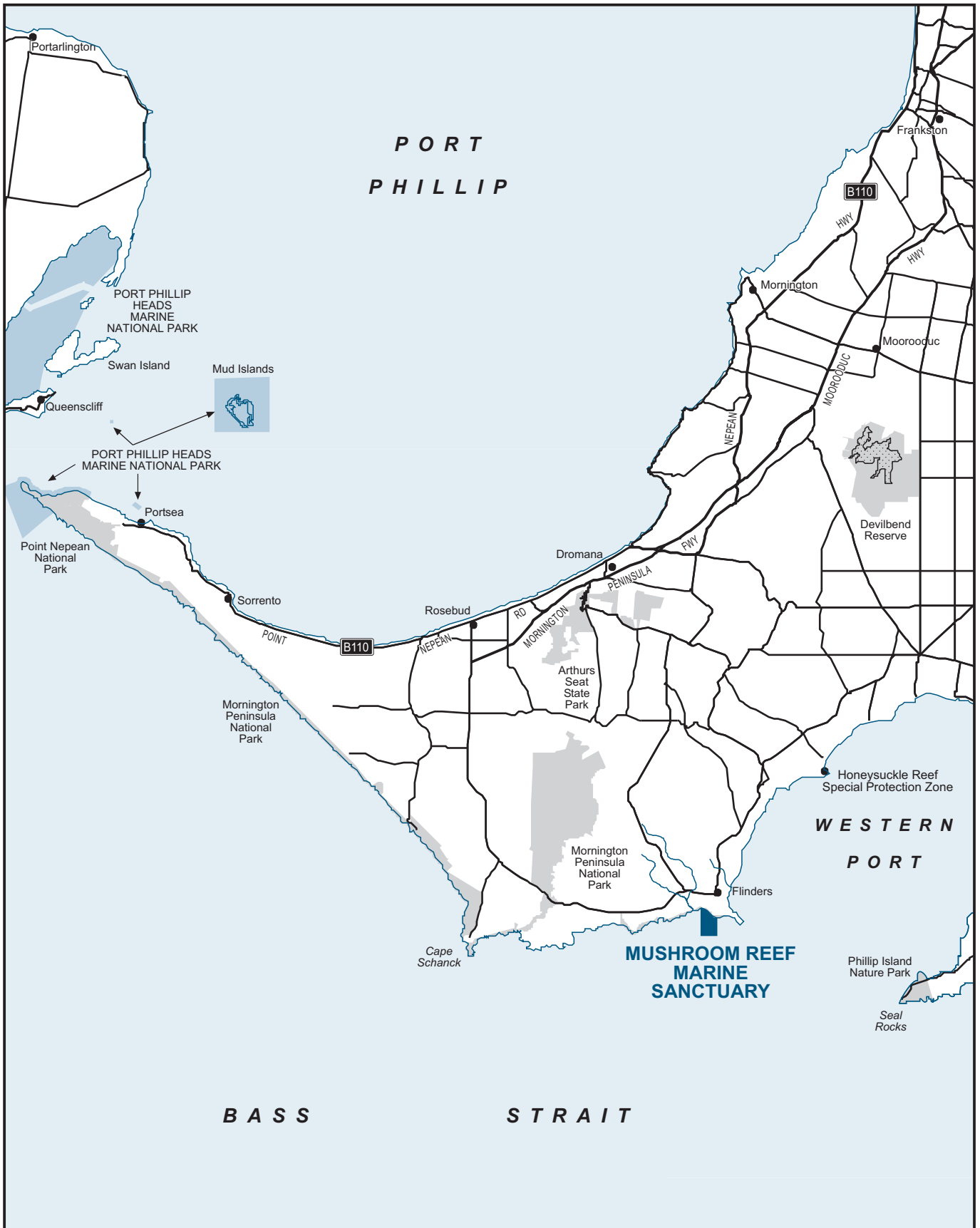
(3)(a) The Secretary, subject to this Act will ensure that each marine national park and marine sanctuary is controlled and managed in accordance with the objects of this Act in a manner that will –

- (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 an 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 nine submissions including one marked confidential were received of the draft plan, comprising six from organisations and three from individuals.

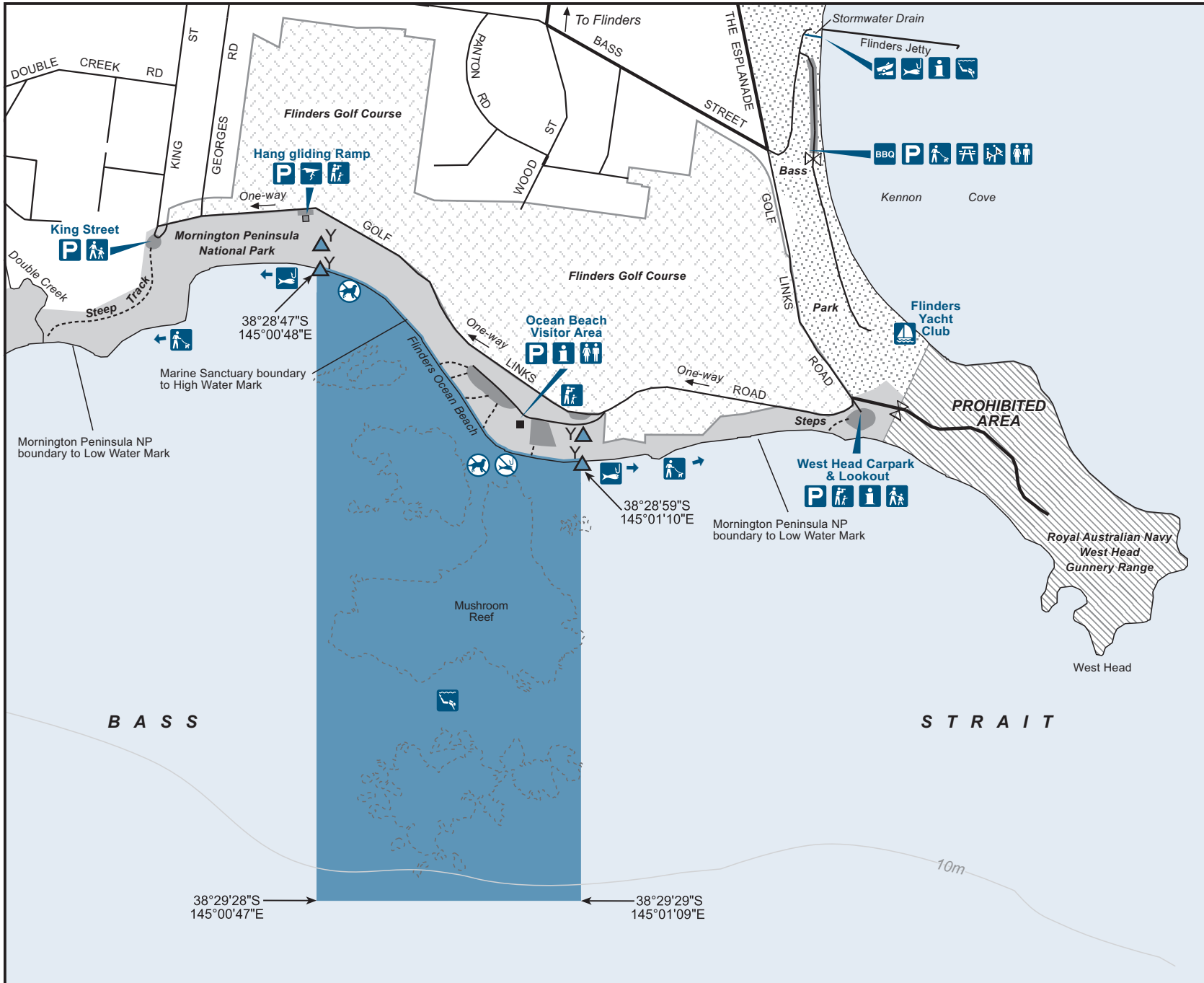
ORGANISATION/ INDIVIDUAL	SUBMISSION NUMBER
<b>Submissions from organisations</b>	<b>Total 6</b>
Australian Marine Conservation Society	3
Department of Primary Industries – Fisheries Victoria	1
Department for Victorian Communities – Aboriginal Affairs Victoria	7
Scuba Divers Federation of Victoria	4
Victorian Wader Study Group	8
Confidential	6
<b>Submissions from individuals</b>	<b>Total 3</b>
A. Grage	2
D. Grage	5
P. Johns	9



**Figure 1**  
**LOCATION**  
**MUSHROOM REEF MARINE SANCTUARY**

-  Freeway/Highway
-  Major sealed road
-  Mushroom Reef Marine Sanctuary
-  Port Phillip Heads Marine National Park
-  Other Parks
-  Waterbody





# MUSHROOM REEF MARINE SANCTUARY

## Figure 2

- Major sealed road
- Minor sealed road
- Walking track
- Shore boundary marker (Colour indicated by letter)
- Intertidal Platform
- Stormwater drain
- Toilet block
- Carpark
- Gate
- Mushroom Reef Marine Sanctuary
- Mornington Peninsula National Park
- Other Reserves
- Commonwealth Land
- Flinders Golf Course

- ### Recreation Facilities
- |                  |              |
|------------------|--------------|
| Barbecue         | Picnic table |
| Boat ramp        | Playground   |
| Carpark          | Scuba Diving |
| Dogs on leash    | Toilets      |
| Fishing          | Walking      |
| Hang gliding     | Yacht Club   |
| Lookout          | No Dogs      |
| Park information | No Fishing   |

