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Point Cooke Marine Sanctuary



Management Plan May 2007

This Management Plan for Point Cooke 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 area was published in August 2006. Twelve submissions were received. All submissions have been considered in preparing this approved Management Plan.

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**POINT COOKE MARINE SANCTUARY
MANAGEMENT PLAN**



May 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 Draft Management Plan. Special thanks go to members of the Point Cooke Marine Sanctuary and Jawbone Marine Sanctuary Management Plan Advisory Group: Doug Evers-Buckland, Clare Johnston, Richard Leppitt, John McElvaney, Doug Osborn, Steve Riley, Kara Spence, Fiona Stevens, Dan Wade, Jeanette Watson, Bob Winters and Kevin Wood.

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

Point Cooke Marine Sanctuary, the largest marine sanctuary in Victoria's system of Marine National Parks and Marine Sanctuaries protects an area of relatively intact habitats of the western shoreline environments of Port Phillip.

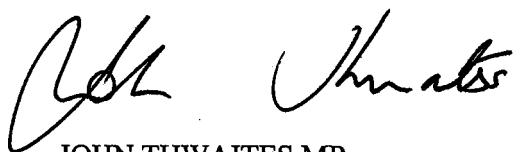
These habitats incorporate a diversity of marine life, including invertebrates, fish, seaweeds, seagrass and internationally significant bird habitat.

The sanctuary and the adjoining Point Cook Coastal Park and Cheetham Wetlands provide a remote coastal haven that is readily accessible to the population of the western suburbs of Melbourne.

The care of the sanctuary is not a task for the government alone, nor only for those who live on the coast. It is a task for the whole Victorian community.

This Management Plan sets out the ways in which we can work together to learn about, protect and sustain an important part of our marine environment.

I thank the Point Cooke and Jawbone Marine Sanctuaries Management Plan Advisory Group for their valuable contribution to the plan, and also those individuals and organisations who made submissions on the draft plan, and I look forward to the community's ongoing support for the management of Point Cooke Marine Sanctuary



JOHN THWAITES MP

Minister for Environment, Water and Climate
Change

APPROVED MANAGEMENT PLAN

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

The plan provides the basis for the future management of Point Cooke Marine Sanctuary. It was finalised following consideration of the 12 submissions received on the Draft Management Plan.



PETER HARRIS
Secretary to the
Department of Sustainability and Environment



MARK STONE
Chief Executive
Parks Victoria

INTRODUCTION TO THE MARINE ENVIRONMENT

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

Broadly speaking, Victoria has responsibility for the waters which extend offshore to three nautical miles and cover around 70 000 square kilometres. Marine National Parks and Marine Sanctuaries make up about 5% of this area, but protect a range of significant species and important habitats, as well as maritime artefacts and evidence of past Indigenous occupation and use.

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

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

As on land, invertebrates, including molluscs (e.g. octopuses, abalones, snails), crustaceans (e.g. crabs, lobsters, tiny amphipods) and echinoderms (e.g. sea cucumbers, sea stars and sea urchins), dominate the marine fauna, but

insects — the most abundant invertebrates on land — are almost absent. The dominant vertebrates are fish, although mammals and reptiles also inhabit the marine environment and many birds inhabit both realms.

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

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

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

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

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

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

inspiration, enjoyment and renewal for all people. The system will complement our world-class national parks system on land.

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

Contribution of Point Cooke Marine Sanctuary to the statewide system

Point Cooke Marine Sanctuary is significant in the statewide system for its contribution to representation of western shoreline environments of Port Phillip, and for the ready accessibility of its relatively intact habitats to the population of Melbourne.

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

SUMMARY

Point Cooke Marine Sanctuary¹ (290 ha) is the largest marine sanctuary in Victoria's system of Marine National Parks and Marine Sanctuaries and was recommended for its contribution to representation of the western shoreline environments of Port Phillip and for the ready accessibility of its habitats.

The sanctuary contains a range of communities and habitats, including sandy beaches, subtidal soft sediments of sand and mud, and intertidal and subtidal reefs. These areas incorporate a diversity of microhabitats and marine life, including invertebrates, fish, seaweeds, seagrass and internationally significant bird habitat. Point Cooke itself is an important geomorphological formation protected within the sanctuary.

The sanctuary provides the community of Melbourne with a sense of remoteness in a natural haven in a fast-developing urban setting. Along with the adjacent Point Cook Coastal Park, the sanctuary provides an important venue for educating the public about the marine environment and marine and coastal conservation.

The beaches of the sanctuary are popular with swimmers, divers and snorkellers as they are among the few accessible swimming beaches on the western coast of Port Phillip. The sanctuary's waters are popular for boating, and Point Cooke is an important landmark and a navigational reference for boat operators.

Future management aims to achieve an improvement to biodiversity while allowing opportunities for visitors to enjoy and appreciate the sanctuary. Management directions for the sanctuary include the following:

- Habitats within the sanctuary will be managed for the protection of marine flora and fauna, including birds, fish, invertebrates, seaweeds and seagrass, subject to natural processes.

- Natural processes, including competition, predation, recruitment and disturbance, will be protected to ensure an overall benefit to biodiversity and the variety of marine ecological communities in the sanctuary.
- Scientific research will be undertaken to improve the scientific basis for management of the sanctuary and other marine protected areas, as outlined in *Victoria's System of Marine National Parks and Marine Sanctuaries, Management Strategy 2003–2010*.
- The Traditional Owners' knowledge, interests and rights in the sanctuary and aspirations for Country will be reflected in planning and management.
- Opportunities for marine education will be promoted.
- Opportunities for visitors to enjoy activities that are compatible with conservation objectives will be promoted.
- The impacts of illegal harvesting, including fishing and the collection of shellfish, will be minimised through education, information, community support, and improved surveillance and enforcement.
- Recreational and educational activities within the sanctuary will be managed sustainably with minimal impact on the sanctuary.
- The sanctuary's values and its recreational and tourism opportunities will be interpreted and promoted to foster community participation, appreciation and awareness.
- Friends and volunteer groups will be supported and encouraged to work together and with Parks Victoria to achieve common goals for the sanctuary.
- Collaborative partnerships will be established with other government agencies, the community and other stakeholders to assist in the sanctuary's management.

¹ Point Cooke, named after First Mate John M. Cooke, was originally spelt with an 'e'. The 'e' was later dropped from the place name by common usage. However, the sanctuary and the geographic feature of the point retain the original spelling.

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1 INTRODUCTION

1.1 Location and planning area

Point Cooke Marine Sanctuary¹ is on the north-western side of Port Phillip at Point Cook, about 30 km west of Melbourne and 10 km east of Werribee (figure 1).

The sanctuary (290 ha) extends from the high water mark to between 750 m and 1.1 km offshore. The shoreline boundary is 3.4 km long, beginning at the onshore marker west of the Point Cook Homestead and running east along the foreshore around Point Cooke to the onshore marker at the southern boundary of the Cheetham Wetlands (figure 2). A series of in-water navigational marks define the seaward boundary (sections 6.1 and 7.2).

The sanctuary adjoins Point Cook Coastal Park and Cheetham Wetlands. In this draft plan, 'Coastal Park' refers to Point Cook Coastal Park and 'Wetlands' refers to Cheetham Wetlands.

1.2 Creation of the sanctuary

Point Cooke 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 by the former Land Conservation Council (LCC) and Environment Conservation Council (ECC), summarised in the Marine, Coastal and Estuarine Investigation Final Report (ECC 2000). The recommendations of the ECC accepted by government (Government of Victoria 2002) included reservation of the new parks and sanctuaries under the *National Parks Act 1975* (Vic.). Point Cooke Marine Sanctuary was included on Schedule 8 of the National Parks Act on 16 November 2002 (appendix 1).

The area of the sanctuary south of Point Cooke was originally gazetted as the Point Cook Marine Reserve in 1982 and then gazetted as

the Point Cook Fisheries Reserve in 1998. All extractive activities including fishing were prohibited between the high water mark and 200 metres seaward of the high water mark in the Point Cook Fisheries Reserve. Fishing using a line with not more than two hooks, and the collection of abalone by the holder of a commercial abalone licence, was permitted seaward of 200 m from the high water mark.

When created, much stronger penalties were applied to all forms of fishing, including shellfish collection, in Marine National Parks or Marine Sanctuaries, than apply for taking or damaging other fauna, plants or objects from these areas. However, the abovementioned recreational and commercial fishing activities were allowed to continue in Point Cooke Marine Sanctuary until 1 April 2004, except in the area between the high water mark and 200 metres seaward of the high water mark (in the former Point Cook Fisheries Reserve).

1.3 Plan development

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

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

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.

¹ Point Cooke, named after First Mate John M. Cooke, was originally spelt with an 'e'. The 'e' was later dropped from the place name by common usage. However, the sanctuary and the geographic feature of the point retain the original spelling.

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 plan was published as a Draft Plan for public comment in 2006, and 12 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 included strengthening mechanisms to minimise catchment impacts and to better manage visits by school groups and monitor trampling impacts, and adding further detail to clarify issues raised.

This final management plan will direct future management of the Point Cooke Marine Sanctuary, until reviewed.

2.1 Regional context

Point Cooke Marine Sanctuary forms part of a representative system of 13 Marine National Parks and 11 Marine Sanctuaries in Victoria, established within the broader context of a National Representative System of Marine Protected Areas (NRSMPA). The establishment of a NRSMPA contributes to the establishment of a global representative system of marine protected areas (ANZECC TFMPA 1999).

Point Cooke Marine Sanctuary is one of eight Marine National Parks and Marine Sanctuaries in the Victorian Embayments marine bioregion, as identified by the Interim Marine and Coastal Regionalisation for Australia (IMCRA). This regionalisation identified 60 marine bioregions, five of which apply to Victorian waters (IMCRA Technical Group 1998). Point Cooke Marine Sanctuary protects approximately 0.1% of the Victorian Embayments marine bioregion.

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

Indigenous tradition indicates that the sanctuary is part of *Country* of Boonwurrung¹ (section 5.1).

The foreshore adjacent to the sanctuary (section 7.2) is within the City of Wyndham. A designated growth area of Melbourne, the city is one of the fastest-growing municipalities in Victoria. In 2003, the City of Wyndham's population was estimated to be 100 080, increasing at a rate of approximately 8% per annum (Wyndham City Council at www.wyndham.vic.gov.au).

The sanctuary is within the Werribee Catchment of the Port Phillip and Western Port Catchment Region. Part of the area of responsibility of the Port Phillip and Western Port Catchment Management Authority, the catchment is predominantly used for agriculture, but indigenous vegetation still covers 25% of the catchment. Kororoit Creek, Laverton Creek, Skeleton Creek, Werribee River and Little River flow through the catchment into Port Phillip.

Port Phillip is Melbourne's most important recreational area and also provides shipping access to one of Australia's busiest seaports. The sanctuary is in Tourism Victoria's Melbourne product region. This product region receives 40% of all tourist visits to Victoria, comprising 6.7 million domestic overnight visitors, 15 million domestic day visitors and 1.1 million international overnight visitors (Tourism Victoria 2003).

Point Cooke Marine Sanctuary protects 3.4 km of the coastline and adjacent waters around Point Cooke and is complemented by parks, reserves and other Marine Sanctuaries, including the following:

- Point Cook Coastal Park (443 ha) adjoins the sanctuary's southern shoreline and is 20 km south-west of Melbourne. It is a popular destination for birdwatchers, nature lovers and families. The Coastal Park protects abundant birdlife and an historic bluestone homestead, and forms part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.
- Cheetham Wetlands (420 ha), adjoining the Coastal Park and abutting the sanctuary's northern shoreline, consists of lagoons and saltmarshes of varying salinity levels which are important habitats for wader birds and other wildlife. The Wetlands form part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.
- Jawbone Marine Sanctuary (30 ha) at Williamstown, less than 10 km from the centre of Melbourne, is notable for its ecological values, including the unusual

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

occurrence of mangroves in Port Phillip, roosting sites for migratory waders, and algal and faunal communities.

- Ricketts Point Marine Sanctuary (115 ha) at Beaumaris, 20 km south of the centre of Melbourne, represents and protects typical examples of the eastern shoreline and marine environments of Port Phillip.

2.2 Sanctuary significance and values

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

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

The sanctuary and the adjoining Coastal Park and Cheetham Wetlands form part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site and are part of the 'Point Cook Estate' listed on the Register of the National Estate for its diversity of wetlands combined with various coastal and terrestrial habitats.

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 Cheetham Wetlands, Friends of Point Cook Coastal Park, other community groups, individuals, residents of the Point Cook area and the education and research community have historical associations with the sanctuary area. Parks Victoria respects the community's traditional and historical associations with the sanctuary area.

The sanctuary is a significant feature on the north-western shoreline of Port Phillip and is a

typical example of the very shallow western shore of Port Phillip.

Important values of the sanctuary are listed below.

Natural values

- Sandy beaches, intertidal reefs and mudflats, offshore banks and waters that provide roosting and foraging area for migratory seabirds and shorebirds, and are Ramsar-listed and of international significance.
- Intertidal and subtidal basalt reef system that supports dense macroalgae and beds of Cunjevoi, and provides habitat for a diverse range of fish and invertebrate species including sea urchins and abalones.
- Parallel and irregular sand ridge formations that are of regional significance.
- Relict spits of Quaternary basalt buried by coastal sand, shell and gravel.

Cultural values

- Coastal area of high significance to Indigenous people.
- Two shipwrecks, the *Diana* and the *Henrietta*, listed on the Victorian Heritage Register.
- Remnants of a pier adjacent to the homestead used for the shipment of goods and ballast.
- Historic values of the adjacent Point Cook Homestead and the history of the Chirnside family.
- Historic values of Cheetham Saltworks adjacent to the sanctuary.
- Historic use for RAAF activities, including target practice.

Recreation and tourism values

- Leisure activities such as swimming, walking, birdwatching and nature observation.
- Colourful subtidal reefs that offer opportunities for snorkelling and diving.
- Recreational boating, including kayaking and sailing.

- Opportunities for guided marine education and nature-based tourism.
- Scenic landscapes that provide for spectacular photography and artistic pursuits.

2.3 Evidence of past use

Indigenous communities have a long association with the Port Phillip region — around 40 000 years. The ancestors of the Boonwurrung and Woiwurrung frequented the coastal area of Point Cooke to catch fish and gather shellfish from the reefs.

Middens, burial sites and stone tools found along the coast between Werribee and Williamstown provide evidence that the Boonwurrung and Woiwurrung have inhabited the area that now includes the sanctuary for at least 6000 years and highlight the importance of the area to Indigenous communities.

The coastal area of Point Cooke was noted by European explorers as early as 1803 and was named in honour of John M. Cooke, first mate of HMS *Rattlesnake*, who sailed into Port Phillip on a survey and charting voyage in 1836.

The land adjoining the sanctuary is an important part of Victoria's early pioneering establishment. First settled in 1849, Point Cooke was occupied by a number of owners, the most notable being the Chirnsides family in the 1850s. Both the Chirnsides and Sydney Dalrymple built piers on Point Cooke for the shipment of goods and ballast, but only the remains of the Dalrymple pier remain. Two heritage-listed shipwrecks, the *Henrietta* and *Diana*, are within the waters of the sanctuary.

Parts of the property were sold by Dalrymple, to the Australian Flying School and to Cheetham Salt Works Pty Ltd before being acquired by the Melbourne Metropolitan Board of Works in 1978 and opened to the public as the Point Cook Coastal Park. Since becoming accessible to the public, the intertidal area of the sanctuary has become popular for shore-based activities.

The sandy beaches of the sanctuary are used for swimming, relaxing, sunbaking, artistic activities, nature observation, bird-watching and walking. Parts of the sanctuary and adjoining lands were included in the Port

Phillip Bay Western Shoreline and Bellarine Peninsula Ramsar Site in 1982.

The waters around Point Cooke have been used for recreational fishing and were important for commercial fishing, particularly for abalone.

2.4 The sanctuary visitor

Point Cooke Marine Sanctuary is readily accessible by road from the central and western suburbs of Melbourne and from Werribee and Geelong. Visitors enter the sanctuary from the adjacent Coastal Park or by boat. The Beach Recreation Area in the Coastal Park provides public facilities including picnic shelters, gas barbecues, toilets, change rooms and showers.

The sanctuary is very popular during the summer months as it is one of the few accessible swimming beaches on the western shoreline of Port Phillip. As in most bayside beach areas, swimming, walking, nature observation and bird-watching are popular, along with other activities including snorkelling, diving and boating.

The sanctuary is also used for marine educational activities. Marine interpretive tours and visits by school groups take place on the intertidal area in the sanctuary and the Information centre at the Coastal Park on weekdays, particularly during the warmer months.

The Friends of Point Cook Coastal Park has the potential to increase local community stewardship of the sanctuary.

2.5 Legislation and ECC recommendations

Legislation

The 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, cultural 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.

After the proclamation of the sanctuary on 16 November 2002, recreational and commercial

fishing activities were prohibited within part of the sanctuary – the area south of Pt Cooke between the high water mark and 200 metres seaward of the high water mark that was in the former no-fishing area of Point Cook Fisheries Reserve. Recreational and commercial fishing activities were permitted in the remainder of the sanctuary until 1 April 2004.

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 2002c) and a Regional Compliance Plan (Parks Victoria 2003a) have been developed in partnership with Fisheries Victoria – Department of Primary Industries to manage compliance with the no-fishing provisions within the sanctuary (section 8.3).

The objects and provisions of the National Parks Act set the framework for the management of the 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 *Coastal Management Act 1995* (Vic.) applies to the use and any development of the whole of the sanctuary.

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 *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC) 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 Point Cooke Marine

Sanctuary to be provided by Parks Victoria on behalf of the Secretary to the Department of Sustainability and Environment.

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 Point Cooke Marine Sanctuary for its contribution to representation of western shoreline environments of Port Phillip, and for the ready accessibility of its relatively intact habitats to the population of Melbourne.

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

- B6 Use of Point Cooke 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.) (FFG) 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, with other relevant policies and guidelines, including:

- *Victoria's System of Marine National Parks and Marine Sanctuaries Management Strategy 2003–2010* (Parks Victoria 2003d)
- *Indigenous Partnership Strategy and Action Plan* (Parks Victoria 2005a)
- *Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites* (Parks Victoria 2002b)
- *Victoria's Biodiversity Strategy* (NRE 1997b)
- *National Strategy for the Conservation of Australia's Biological Diversity* (ANZECC 2001)
- *The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Strategic Management Plan* (DSE 2003b)
- *Heritage Management Strategy* (Parks Victoria 2003b)
- *Victoria's Heritage — Strengthening our Communities* (Heritage Victoria 2006).
- *National Strategy for Ecologically Sustainable Development* (COAG 1992).

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

- *Point Cook Coastal Park and Cheetham Wetlands Future Directions Plan* (Parks Victoria 2005b)
- *Nature Based Tourism—Directions and Opportunities for Victoria 2000–2003* (Tourism Victoria 2000)
- *Policy for Sustainable Recreation and Tourism on Victoria's Public Land* (NRE 2002a)
- *Port Phillip and Western Port Regional Catchment Strategy 2004–2009* (PPWPCMA 2004)
- *Port Phillip Bay Environmental Management Plan* (NRE 2002b)
- *Port Phillip Coastal and Marine Planning Program 2000* (ABM 2000)
- *State Environment Protection Policy (Waters of Victoria)*
- *Victorian Coastal Strategy* (VCC 2002).

3 STRATEGIC DIRECTIONS

3.1 Sanctuary vision

A future visitor to Point Cooke Marine Sanctuary finds a sanctuary renowned for its unspoilt coastal landscape and undisturbed character. The sanctuary's basalt reefs are cloaked by diverse algal communities and abundant invertebrate populations. The sanctuary is a haven for migratory birds, seabirds and shorebirds, and as part of an internationally recognised and protected Ramsar Site it remains an ideal location for birdwatching.

The sanctuary is a source of wonder and enjoyment for visitors. An underwater wilderness on the edge of a unique wetland, it has thrived in its urban surroundings.

It is popular for water and shore-based recreation, and its shores and rocky reefs are ideal for marine education and nature observation. School groups and visitors enjoy guided sustainable activities in a safe and accessible environment.

Divers and snorkellers marvel at the stunning array of colourful invertebrates and fish on the subtidal reefs. Scientific research and surveys reflect the sanctuary's biodiversity and convey the benefits of Marine Sanctuaries to the wider community.

Indigenous cultural heritage is respected, conserved and communicated along with European and maritime history in interpretation, guided tours, and activities.

The sanctuary is protected from the pressures of nearby residential development, and recreational use from land and sea has had minimal impact. Coastal processes have been allowed to occur naturally.

Management is integrated with the adjoining coastal park and wetlands. Local Friends and community groups contribute to, and support, sanctuary 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 variety of marine ecological communities in the sanctuary.
- The feeding and roosting habitat value of the intertidal areas will be protected for local and migratory seabirds and shorebirds.
- 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.
- Negative impacts of changes to water quality will be minimised by seeking improvement to stormwater and waterway discharge quality through cooperation with stormwater and waterway managers.
- Identified threats to the sanctuary will be minimised by addressing the outcomes of ongoing monitoring, risk assessment and, where feasible, complementary adjacent, coastal and catchment management.
- Research and monitoring to improve the scientific basis for management, including baseline data collection, marine habitat mapping and threat assessment, will be undertaken as outlined in *Victoria's System of Marine National Parks and Marine Sanctuaries, Management Strategy 2003–2010* (Parks Victoria 2003d), and through collaborative research links.

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 the Indigenous and historic cultural heritage of the sanctuary will be encouraged and supported as appropriate, in consultation with the Indigenous and wider communities.
- Shipwrecks, historic relics and places will be conserved by protecting them from damaging or inappropriate activities.

The sanctuary visit

- Sustainable use by school and community groups for education about the sanctuary and marine values will be supported.
- Visitor enjoyment will be enhanced by appropriate management of recreational activities.
- Management of visitor access will be integrated with management of the adjoining Point Cook Coastal Park.
- Visitor understanding and appreciation of the sanctuary's natural and cultural values will be enhanced by the implementation of information, interpretation and education programs.
- Recreational opportunities will be permitted in accordance with table 1.

- Visitors will be encouraged to adopt minimal impact techniques and to adhere to industry-developed standards appropriate to their activity.
- Visitors will have opportunities to observe marine life, enjoy water sports and participate in other recreational activities compatible with management objectives.

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 sanctuary's planning and management.
- Friends, volunteers, Indigenous groups and other community groups will be encouraged and supported to participate in areas of sanctuary management that relate to their interests.
- An awareness and understanding of the sanctuary and its management, and a sense of custodianship, will be encouraged among local communities and visitors.
- Strong relationships will be further developed and maintained with people, groups and communities with strong connections to or interests in the sanctuary, as a basis for encouraging their appropriate participation in the sanctuary's management.
- Collaborative partnerships will be established with relevant agencies and non-government organisations to progress areas of mutual interest which strengthen protection of the sanctuary.
- Ongoing opportunities will be given for communities, groups, individuals and other agencies to share their interests and concerns relating to the sanctuary with the sanctuary's management.

TABLE 1 SUMMARY OF RECREATIONAL OPPORTUNITIES

ACTIVITY	MARINE SANCTUARY
Aircraft (including landing sea-planes, hang-gliding, paragliding)	N
Beachcombing (no collecting)	Y
Bait collecting	N
Bird-watching	Y
Boating (section 6.3)	
Hovercraft	Y
Kiteboarding / windsurfing	Y
Motorised boating	Y
Non-motorised boating (canoe, kayak, surf-ski)	Y
Personal water craft (PWC)	Y
Sailing	Y
Boat operation (sections 6.2 & 6.3)	
Anchoring	Y
Landing	Y
Launching motorised vessels (no facilities)	Y
Launching non-motorised vessels (no facilities, no trailers)	Y
Mooring (private)	N
Camping	N
Filming and photography	Y
Cycling	N
Diving and snorkelling	Y
Dogs and horses	N
Driving on beaches	N
Education / guided activities (sections 6.5 and 6.7)	Y
Feeding wildlife	N
Fires on beaches	N
Fishing (all forms)	N
Fossil collecting	N
Licensed tours	Y
Nature photography / painting	Y
Picnicking	Y
Prospecting and metal detecting	N
Rockpool rambling	Y
Scenic viewing	Y
Shell collecting	N
Sightseeing	Y
Surfing/boogie boarding	Y
Swimming	Y

Table 1 contd.

ACTIVITY	MARINE SANCTUARY
Wake-boarding / water-skiing	Y
Walking (intertidal zone)	Y
Whale / dolphin / seal watching	Y
Wreck diving	Y

Note: The use of chainsaws and generators is not permitted in the sanctuary.

Key: Y Permitted, subject to conditions prescribed by legislation, permits or elsewhere in the plan as indicated.

N Not permitted.

4 STRATEGIES FOR NATURAL VALUES CONSERVATION

4.1 Geological and geomorphological features

Fluctuating sea levels associated with glacial and interglacial phases have altered the morphology of Port Phillip's coastline. During the last interglacial phase about 4000 years ago the sea level was 1 to 2 metres above its present level. It is likely that the features of geomorphological importance in the sanctuary were formed during this period.

Point Cooke is an outcrop of Quaternary basalt, the remains of lava flow across the plains of Northern Port Phillip, buried by coastal deposits of sand, shell and gravel. Point Cooke is backed by one prominent parallel coastal ridge 150 m inland, extending northward. In front of this are lower hummocky ridges behind a beach of shelly sand.

Southwest of the point is a zone of broad, parallel and evenly spaced sand ridges 250 m apart. These ridges enclose a former embayment that now contains RAAF Lake. The ridges consist of coarse sand and shells, with rounded basalt pebbles lower in the ridges. The crests have been elevated by the addition of wind-borne material. This site is one of the very few localities on the western side of Port Phillip with a southerly orientation. This orientation determined the regular parallel alignment of the sand ridges, which have been formed primarily by wave action (Rosengren 1988).

The regular, parallel nature of the ridges contrasts with the oblique and irregular ridges to the north of Point Cooke. The irregular ridges indicate the more prominent role of wind in their formation. The irregular ridge system to the north of Point Cooke has also enclosed a former marine embayment. The relict sand spits in the sealed embayment form the lagoons of the Cheetham Wetlands.

The parallel and irregular ridges are recognised as an area of regional significance. The coastal processes that maintain the ridge system could be disturbed by formalisation of recreational facilities or other development within or adjacent to the sanctuary.

Point Cooke is the southernmost of several different forms and modes of sand accumulation between Williamstown and Werribee. Point Cooke is a relatively undisturbed site and represents an unusual phase of coastal progradation, so it is an important site for determining the sedimentary history of the northwest area of Port Phillip (Rosengren 1988).

The coastline of Port Phillip is characterised by complex and dynamic processes. Seasonal wave conditions, current patterns, and storm energy create a dynamic environment in which there is natural accretion and attrition of beaches, causing sand to cover and uncover the reefs and other habitats. At Point Cooke the prevailing direction of sand movement is northward, delivering sand to the beaches around Altona. Erosion of the coastline adjacent to the homestead has been known to occur (section 7.2).

Events such as storms and regular sand accretion and attrition are considered to be ongoing natural processes. Human impacts, including coastal modifications and beach renourishment nearby or adjacent to the sanctuary, could affect the geological values of the sanctuary and beaches to the north of the sanctuary through longshore drift, deposition and erosion.

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

Aim

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

Management strategies

- *Minimise visitor and management impacts on the sand flats, sand ridges and basalt reefs.*
- *Protect the coastal processes that maintain the formation of the ridge system by prohibiting the construction of structures including sea walls, groynes and boat ramps within the sanctuary and beach renourishment.*

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

4.2 Catchment and water quality

The sanctuary is within the Werribee basin of the Werribee catchment of the Port Phillip and Western Port Catchment, which is under the jurisdiction of the Port Phillip and Westernport Catchment Management Authority (section 8.3). The catchment is approximately 270 000 ha, has a population of over 315 000 people and includes urban centres at Werribee, Melton, Bacchus Marsh and developing residential areas at Point Cook and Sanctuary Lakes.

The Werribee catchment landscape is characteristically flat and has low rainfall. Rainfall varies from 1000 mm annually in the forested hills to 500 mm annually in the southern plains and coastal areas. Indigenous vegetation covers 25% of the catchment and is protected by a number of parks and State forest, including Brisbane Ranges National Park, Lerderderg State Park, You Yangs Regional Park, Point Cook Coastal Park and Wombat State Forest. The Laverton North and Derrimut Grassland Reserves are two of the largest areas of protected native grasslands in the State. The coastal wetlands and mudflats of the catchment support coastal native plant communities and an extensive range of migratory bird species, including the endangered Orange-bellied Parrot. Some of the coastal wetlands and mudflats to the south-west of Skeleton Creek are Ramsar-listed.

The catchment has been vastly altered since European settlement through the clearing of large sections of land for agriculture and urbanisation. These activities have resulted in erosion, increases in nutrient and salinity levels and loss of habitat, lowering the quality of waterway discharge into the northern section of Port Phillip and, consequently, the natural values of the sanctuary.

Fifty per cent of nitrogen loads in Port Phillip are from catchment-based sources. Port Phillip also receives water from the Western Treatment Plant (WTP), which is managed by Melbourne Water. The Western Treatment Plant treats a daily flow of approximately 485 ML (52% of Melbourne's sewage). Increased nitrogen loads from this water may affect the sanctuary, although the WTP was upgraded in 2005 to reduce nitrogen loads. The Altona Treatment Plant, managed by City West Water, treats a daily flow of approximately 15 ML. The effluent is discharged, via an underground pipeline near Laverton Creek, into Port Phillip 400 metres offshore. The effluent from both treatment plants is treated to the standards in State Environment Protection Policy (Waters of Victoria) – Schedule F6 Waters of Port Phillip Bay before being discharged into Port Phillip. Intensive horticultural use of land for market gardens around Werribee has created large cultivated areas where nutrients and sediment are washed into waterways and drains by rain.

Major rivers in the catchment include the Werribee, Yarra, Maribyrnong and Lerderderg Rivers. Smaller waterways in the catchment include Little River, Kororoit Creek, Laverton Creek and Skeleton Creek. No rivers or creeks discharge directly into the sanctuary, although the sanctuary may be indirectly affected by the discharge of rivers and creeks in the Werribee Catchment.

Potential impacts from Skeleton Creek and Laverton Creek are of concern. Although both creeks do not flow directly into the sanctuary they could have significant impact on the sanctuary because they discharge into Port Phillip only 2 km and 4 km respectively north of the sanctuary.

The upper reaches of Skeleton Creek flow through grazing areas near Mount Cottrell. The lower section of the creek flows through an increasingly urbanised area around Hoppers

Crossing before passing through Cheetham Wetlands into Port Phillip. The water quality of the creek is rated as moderate (Melbourne Water 2004b), but high levels of phosphorus and nitrogen have been recorded in the creek (EPA 2000). The riparian vegetation in the creek is considered to be in very poor condition (Melbourne Water 2004b). Key threats to the creek include impacts of increasing urban development, changes to water flow, salinity, barriers to fish movement and degraded habitat (Melbourne Water 2004b). The master plan for Skeleton Creek (HBCC 2001) provides direction for improvements to the creek habitat, including reinstatement of indigenous vegetation and weed control, currently being undertaken by Wyndham City Council and Hobsons Bay City Council with support from Melbourne Water and Parks Victoria.

The upper reaches of Laverton Creek flow through a semi-rural area before flowing through areas of urban and industrial development lower in the catchment. The lower section of the creek flows through Truganina Swamp before discharging into Port Phillip. The water quality of the creek is rated as moderate, but the riparian vegetation and the aquatic life in the creek are considered to be in poor condition (Melbourne Water 2004b).

The Dunning Road (D1) drainage line discharges west of the sanctuary near Duncans Rd at Werribee South, about 7 km west of the sanctuary. The discharge carries sediment and nutrients from market gardens. During heavy rainfall, increased runoff and sediment loads may lead to higher turbidity levels in the sanctuary. Reduction of light levels resulting from high nutrient loads and suspended sediment can also result in the loss of seagrass habitats. High nutrient inputs provide conditions conducive to algal blooms and increased epiphyte growth, which may also smother seagrass beds and lead to changes in the ecology of marine communities.

The Southern Channel of the Cheetham Wetlands discharges directly into the sanctuary. The channel carries discharge from the wetlands as well as overflow from the Sanctuary Lakes development. The daily discharge is small at present.

Plans for a residential development at Sanctuary Lakes, north-west of the Coastal Park, involve the diversion of stormwater into the Southern Channel. Such a diversion has the potential to affect the sanctuary's water quality through pollutants, litter, sedimentation and, in particular, high nutrient levels. A reduction in the sanctuary's water quality may impact on the sanctuary's Ramsar values. The Ramsar Site management plan (DSE 2003b) recommends stormwater management plans for urban areas adjacent to the Ramsar site incorporating the principles of water sensitive urban design and flow retention (DSE 2003b). A management plan to control the water quality of Sanctuary Lake and reduce the impacts of discharge from the Lake has been developed (Coomes Consulting 2004).

Melbourne Water is responsible for regional drainage and waterway management within the catchment, including the Southern Channel. Melbourne Water has set targets to improve the water quality of waterways within the Werribee Catchment (Melbourne Water 2004a). Melbourne Water and Wyndham City Council are responsible for stormwater management and local stormwater catchments primarily associated with residential development (section 8.3). The *Wyndham Stormwater Management Plan* (WCC 2000) sets out the implementation of the environmental objectives outlined in the SEPP for the waters of Port Phillip.

Hobsons Bay City Council has developed an Environment Strategy (HBCC 2006) to improve water quality and riparian vegetation in local waterways. Wyndham City Council has developed a *Water Action Plan* (WCC 2005) to improve the water quality of local waterways and to minimise the impact of local waterways on the marine environment.

Urbanised areas are covered extensively by impervious surfaces, creating an unnatural amount of runoff. Stormwater systems have been developed to channel the runoff into waterways and the marine environment to minimise the risk of flooding. Stormwater has the potential to affect the water quality and, consequently, the natural values of the sanctuary by delivering excess fresh water and pollutants, including sediments and nutrients, micro-organisms, toxic organics, heavy metals, oils and surfactants, as well as litter and debris.

Pollutants may also enter the sanctuary from onshore and offshore activities in and around the sanctuary.

The sanctuary may also receive discharge from the septic system of the Point Cook Homestead, which may generate small freshwater and nutrient flow into the sanctuary. Freshwater runoff from the roof of the homestead and the stables is collected in rainwater tanks and is channelled onto the grassed area around the homestead. Contaminated water from leaking septic systems can lead to contamination of groundwater and elevated levels of the bacterium *Escherichia coli* (*E. coli*) in the sanctuary's waters.

Under the *Environment Protection Act 1970* (Vic.) littering and the discharge of wastes from vessels is illegal. Litter in the sanctuary may originate from urban areas and be transported through stormwater systems and waterways, or discarded from vessels or piers in or near the sanctuary, or discarded on beaches and adjacent areas. Rainfall can trigger increased litter inputs as litter is washed into drains and waterways. There are no litter traps on the stormwater drains that discharge into the closest waterways — the Southern Channel, Skeleton Creek and Laverton Creek. More information about the sources of litter is required to develop targeted preventative programs. Litter accumulating on beaches may cause injury to people and animals, and recirculate into the marine environment. Beach cleaning activities that remove wrack from intertidal sandy beach areas can adversely affect ecological processes and biodiversity (section 4.4).

State Environment Protection Policy (Waters of Victoria) — Schedule F6 Waters of Port Phillip Bay requires operators of vessels to install effective on-board waste-containment facilities to avoid the disposal of wastes or sewage from vessels. The EPA monitors water quality in Port Phillip, but there are no monitoring sites within the sanctuary. The EPA's 2004–05 data suggest that contaminated stormwater remains the main cause of bacteriological pollution at Port Phillip beaches (EPA 2005).

The health of local environments can be improved through the implementation of Neighbourhood Environment Improvement

Plans (NEIPs). NEIPs are action plans developed in partnership by all parts of the community and administered by EPA Victoria under the Environment Protection Act. They are designed to address environmental issues of importance to the community at a local scale and build on and support other efforts to protect Victoria's environment (section 8.3).

The proximity of the sanctuary to shipping lanes for commercial vessels that access the Port of Melbourne make it vulnerable to potential impacts from channel dredging and oil or chemical spills (section 7.2).

Responses to marine pollution incidents often require a diverse range of skills and resources involving coordination between multiple agencies.

As the manager of 70% of Victoria's coastal areas, Parks Victoria plays a significant support role in responses 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

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

Management strategies

- *Work with the Sanctuary Lakes Housing Estate developer, Melbourne Water and Wyndham City Council to:*
 - *ensure that stormwater discharged into the sanctuary via the Southern Channel meets water quality levels consistent with SEPP objectives*
 - *encourage incorporating the principles of water sensitive urban design and flow retention in the stormwater management plan for the Estate.*

- *Work with Melbourne Water, Port Phillip and Westernport CMA, Wyndham City Council and Hobsons Bay City Council to:*
 - *improve the ecological health of Skeleton Creek and Laverton Creek by minimising the impact of discharges from these waterways on the water quality of the sanctuary*
 - *minimise catchment-derived impacts that may indirectly influence the water quality of the sanctuary*
 - *seek amendment to their waterway and catchment management plans to protect sanctuary values from catchment impacts.*
- *Work with the lessee of Point Cook Homestead to monitor and minimise the risk of discharge from the homestead's septic system into the sanctuary's waters.*
- *Liaise with City of Wyndham and Melbourne Water to implement stormwater management plans to better manage retention and removal of pollutants from stormwater entering the sanctuary and impacting negatively (DSE 2003b).*
- *Seek installation of litter traps on the Southern Channel, Skeleton Creek and Laverton Creek.*
- *Liaise with Wyndham City Council to minimise litter within the sanctuary.*
- *Investigate the sources of litter affecting the sanctuary and encourage the involvement of community groups. Implement litter education and collection programs in the sanctuary, including participation in Clean Up Australia Day, subject to safety considerations.*
- *Remove accumulated litter from accessible intertidal areas within the sanctuary and permit mechanical beach-cleaning activities only where necessary to ensure public safety and to protect sanctuary values or as part of an emergency response, such as to an oil or chemical spill (section 8.3). Minimise the collection of wrack during beach-cleaning activities.*
- *Incorporate water quality and catchment issues in interpretation and education programs and liaise with relevant agencies to communicate the benefits to the*

sanctuary in wider community education programs.

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

4.3 Hydrodynamics

Port Phillip is a very shallow embayment (maximum depth 24 m). A large part of the sanctuary has a depth of less than 5 m and very little is deeper than 10 m. The sanctuary is exposed to the active and fluctuating hydrodynamic processes that occur in the northern section of Port Phillip.

Wind and tidal forces dominate the circulation of water within Port Phillip and the sanctuary. There is little background swell in this part of Port Phillip; the water is calm when there is no wind. In moderate winds the waves are choppy and under 0.5 m, but in strong westerly conditions waves can reach heights of 2 m.

Wave energy is driven by westerly winds, coming from the north-west in summer and the south-west in winter. Wind and wave action also influence the beaches, affecting grain size, deposition and erosion (section 4.1). Natural hydrodynamic events such as storm surges displace seaweed and kelp communities, erode beaches and deposit sand over the reefs. The sanctuary has an unequal semidiurnal tidal pattern, with a higher and lower flooding and ebbing event daily. The tidal range is less than 1 m and the water in the sanctuary is exchanged every 28–50 tidal cycles.

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

Potentially threatening processes to the hydrodynamics of the sanctuary include sea-level rise and altered current flows. Because human-induced changes to local hydrodynamic processes could affect the values of the

sanctuary, any proposals for new infrastructure, including artificial reefs, will generally be inappropriate in Marine National Parks or Marine Sanctuaries. Natural hydrodynamic events such as storm surges and regular sand erosion or deposition are considered to be ongoing natural processes (section 4.1).

Aim

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

Management strategies

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

4.4 Habitats and communities

Victoria's system of Marine National Parks and Marine Sanctuaries has been established to protect a representative example of marine habitats within Victorian waters. The sanctuary contains a diversity of habitats, including sandy beaches, subtidal soft sediments of sand and mud, intertidal and subtidal reefs, extensive beds of Cunjevoi and patches of seagrass. These areas incorporate numerous microhabitats that support many communities of plants and animals.

The sanctuary's relatively intact habitats have been protected from extractive activities in the area that was formerly reserved as the Point Cook Fisheries Reserve. The benefits of this protection are evident in the diverse communities that inhabit the intertidal and subtidal reef systems.

Indigenous people recognise natural values as an intrinsic element of *Country*. The diversity and abundance of birds and marine species in the sanctuary provided an important food source for the Traditional Owners.

Sandy beach communities

The shoreline of the sanctuary is composed of intertidal sandy beaches and soft sediments that cover a basalt outcrop. In addition to their recreational and scenic values, intertidal sandy beaches are an important habitat for meiofauna (small invertebrates such as amphipods, isopods, molluscs and polychaetes) and are feeding grounds for fish and seabirds (Plummer et al. 2003).

Physical factors greatly affect the distribution and composition of organisms found in sandy beaches. Wrack, comprising algae, seagrass and other organic material, plays an important role in the sanctuary's intertidal ecology.

Wrack provides an important habitat for many invertebrates such as amphipod and isopod crustaceans, and a food source for seabirds.

During periods of strong winds wrack can form a thick blanket over the intertidal area of the sanctuary. At times wrack can smother intertidal flora and fauna and create anoxic conditions in rock pools, causing die-off (Hart et al. 2005). However, wrack is an intrinsic part of the beach ecosystem and should not be disturbed or removed during the removal of litter from beaches. Beach cleaning that removes wrack and invertebrates from intertidal sandy beach areas can affect ecological processes and biodiversity (Brown & Lachlan 2002) (section 4.2).

Key threatening processes for sandy beaches include bait collection, litter, pollution, oil and chemical spills, beach cleaning and removal of vegetation and wrack, and unnatural hydrodynamic changes.

Soft sediment communities

The sanctuary's subtidal soft sediments (about 90 ha) are diverse and nutrient-rich habitats. Species composition often depends on the grain size and physical structure of the sediment. The spaces between the sand grains provide a habitat for numerous species of small organisms such as nematodes and copepods.

Invertebrates such as bivalve molluscs, amphipods, echinoderms and polychaetes are associated with the upper layers of the sediment, while large animals such as benthic fish, crabs and seastars are associated with the sediment surface (Plummer et al. 2003).

Cunjevois form extensive beds over the soft sediment and provide a substrate for the

attachment of seaweed as well as habitat for a range of animals. Cunjevois also grow on the reef areas in the sanctuary. The habitat created by Cunjevois increases the species richness of these areas (Hart et al. 2004).

Patches of the seagrass *Heterozostera nigricaulis* also grow in the subtidal soft sediments of the sanctuary (Blake & Ball 2001; Plummer et al. 2003). Seagrass beds are complex and productive environments that provide habitat, nursery and feeding grounds for a wide range of organisms, including some commercially important species. They provide habitat for epiphytic algae, grazing invertebrates such as gastropods and amphipods, and larger animals such as crabs and a range of fish.

Visitors may be unaware of and unable to recognise exposed seagrass beds as vulnerable habitat. Key threatening processes for seagrass communities are trampling and disturbance by visitors, dogs and boats, and anchoring, propeller scour, changes in sediment deposition patterns (including sedimentation from dredging), pollution, and changes to water quality and flow.

Rocky reef communities

Extensive intertidal and subtidal reefs occupy about 160 ha of the sanctuary. They were formed by a lava flow across the ancient plain of northern Port Phillip and are characterised by relatively flat and extensive platforms with boulder and cobble fields.

The intertidal reefs can be covered regularly by accretion and attrition of sand. Resident species are adapted to environmental extremes and high wave energy. The composition of species depends on the dynamic processes of competition, predation, recruitment, disturbance and frequency of tidal submergence. The green algae *Ulva* spp. and filamentous red algae including *Gracilaria* spp. are the dominant macroalgal species found on the intertidal reef (Edmunds et al. 2004; Hart et al. 2005). Patches of seagrass also occur in some sections on the intertidal reef. The intertidal reef is characterised by molluscs, in particular herbivorous gastropods including the Zebra and Ribbed Top-shell, Blue Mussel and Common Warrener. The carnivorous mollusc, Wine-mouthed Lepsiella, dark green anemone *Aulactinia verata* and

polychaete tube-worm *Boccardia proboscidea* also occur in the intertidal area (Plummer et al. 2003; Edmunds et al. 2004; Hart et al. 2005).

Key threatening processes for the intertidal reefs and associated communities include changes in tidal patterns, marine pests, pollution, trampling (section 6.1) and illegal removal of biota.

Subtidal reefs within the sanctuary are dominated by the canopy-forming kelp *Ecklonia radiata*. Other brown, green and red algae are also present (Hart et al. 2003). Encrusting coralline algae are the dominant understory species. There is a high diversity of invertebrates in the sanctuary when compared to other sites in Port Phillip (Hart et al. 2003). Dominant among these are the very abundant Common Sea Urchin and Black-lip Abalone as well as numerous seastars including the Purple Seastar, Biscuit Seastar and the predatory Eleven-armed Seastar, Cunjevoi, crustaceans, octopuses, and other molluscs (Plummer et al. 2003; Hart et al. 2003). Common subtidal fish species include the Southern Hulafish, Zebra Fish, Moonlighter, Dusky Morwong, Globe Fish and Horseshoe Leatherjacket (Hart et al. 2003).

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

Water column communities

The sanctuary's water column provides habitat for both planktonic and free-swimming animals such as copepods, jellyfish and ctenophores, and algae such as diatoms. Planktonic species are poor swimmers and are largely dependent on currents for movement, nutrients and food. Many organisms spend the early stage of their life in the plankton before returning as recruits to the adult habitat. Common free-swimming animals include squids, sharks, rays and bony fish such as the Red Snapper and Pilchard.

Bottlenose Dolphins are frequently seen within the waters of the sanctuary. Seals potentially use the sanctuary and nearby waters; other large mammals may pass close to the sanctuary. A Humpback Whale was sighted near the sanctuary in 2001 (Plummer et al. 2003), but this is a rare occurrence.

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 water craft 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 1997a) guides the rescue and treatment of injured or oiled wildlife.

Seabirds and shorebirds

The sanctuary encompasses part of a nationally significant shorebird feeding area that extends from Williamstown to Altona (Garnett et al. 1986; Plummer et al. 2003). The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site extends south from Altona to Limeburners Bay. The diverse intertidal habitats of the sanctuary, including rocky reef, seagrass beds and sandy beaches, form an important feeding and roosting area for local and migratory seabirds and shorebirds.

A total of 135 bird species are known to inhabit or visit the Point Cook and Cheetham Wetland area (part of the Port Phillip Bay Western Shoreline and Bellarine Peninsula Site), including the Caspian Tern, Great Egret and Little Egret and other species listed under the international JAMBA and CAMBA agreements or listed under the Flora and Fauna Guarantee Act (Birds Australia 2006). Approximately 50 bird species have been recorded in the sanctuary (Plummer et al. 2003). Many of these birds are migratory waders, including terns, which feed on the intertidal area and roost on the beach or nearby rocks. The remnant of the pier within the sanctuary is used for roosting by cormorants, Pacific Gulls and pelicans.

The endangered Orange-bellied Parrot, which is listed under the EPBC and FFG Acts, migrates annually to coastal Victoria between March and October. It inhabits the Wetlands and the Coastal Park and may use parts of the sanctuary. The species is threatened by loss of

habitat (particularly saltmarsh feeding grounds), urban development, agricultural practices and recreation.

Birds are vulnerable to disturbance from human activities, including annoyance from dogs (section 6.6), wandering domestic cats (section 7.2), boating activities (section 6.3) and rockpool rambling (section 6.5). Disturbance to birds can result in species no longer visiting a site, a decline in species numbers, and low body weight in migratory birds.

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. This reflects the current vertebrate focus of threatened species management. Environmental management within the sanctuary takes a habitat-based rather than a species-based approach. Management of marine ecological communities within the sanctuary, rather than threatened species, is also likely to protect and enhance 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 shellfish removal and recreational and commercial fishing, are prohibited within the sanctuary. Aquaculture and the feeding of animals, including fish and birds, are also not permitted in the sanctuary.

Previous research undertaken in the sanctuary area has focused primarily on abalone in subtidal reef habitats. Studies have investigated behaviour after fishing (Officer et al. 2001a), estimation of population abundance (Officer et al. 2001b), genetic structure of populations (Huang et al. 2000) and growth estimation (Troynikov et al. 1998). There is great scope for broader ecological research within the sanctuary.

Current research and ongoing monitoring is directed by the statewide Strategy (Parks Victoria 2003d) and is targeted at collecting baseline biological information for the sanctuary that will be used to build knowledge, identify threats, 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 (Hart et al. 2003; Edmunds et al. 2004; Hart et al. 2005). Monitoring areas outside the sanctuary or reference sites have been established at Altona and Williamstown for the intertidal zone, and offshore near the RAAF base at Laverton for the subtidal zone (Hart et al. 2003). 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.

Community monitoring programs such as Reefwatch and Sea Search can also provide information about the flora and fauna of the sanctuary and make a valuable contribution to the monitoring of the sanctuary and other management programs (section 8.2).

Volunteers and community groups 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 visitor activities to minimise impacts on the sanctuary, with a focus on managing identified threats including compliance with no take regulations.*
- *Maintain migratory bird and shorebird roosting and feeding habitat and sensitive seagrass habitat by managing visitor impacts, particularly from education and other groups (sections 6.1 and 6.7).*
- *Implement priority actions from approved action statements or recovery plans to address threats to the Orange-bellied Parrot and other listed species.*

- *Ensure sightings of marine flora and fauna are recorded on the Parks Victoria Environmental Information System and DSE statewide databases (section 8.3).*
- *Identify and support research into key threatening processes and major knowledge gaps.*
- *Map habitats at scales suitable for management purposes and maintain and support appropriate long-term habitat monitoring program as part of relevant statewide marine habitat mapping and monitoring programs.*
- *Work with seabird and shorebird conservation organisations to support bird monitoring programs within the sanctuary.*
- *Undertake regular risk assessments and assess the major threats to habitats and communities, and review management programs as appropriate.*
- *Promote and support opportunities for community participation in monitoring programs within the sanctuary (section 8.2).*
- *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.*
- *Reflect Indigenous knowledge of communities and species in management practices as appropriate, and ensure that their significance to the Traditional Owners is respected in all management and visitor activities.*
- *Ensure that all visitors comply with the Wildlife Act, Fisheries Act and Wildlife (Whale) Regulations when observing marine life.*
- *Respond to cetacean incidents in accordance with the Victorian Cetacean Contingency Plan (section 8.3).*

4.5 Landscape and seascape

The coastal vegetation of the Coastal Park and Wetlands and flat plains below the You Yangs create a scenic backdrop for the sanctuary. Point Cooke is a prominent feature on the

shoreline and forms a low headland with rock platforms that divide the sandy shoreline. It is used as a navigational feature by boat operators.

Panoramic views over Port Phillip and Melbourne's skyline can be obtained from Point Cooke. The adjacent Point Cook Homestead, surrounded by distinctive pine trees, has become an important element of the local landscape as a remnant of an early pioneering establishment. The remnant of a pier is also visible near the homestead.

The landscape and seascape of the sanctuary were protected with the creation of the Coastal Park and the former Point Cook Fisheries Reserve.

Beneath the waves the seascape is an array of habitats representative of the marine life of northern Port Phillip. Basalt reefs support canopy-forming algae that hide sea urchins, crabs, abalones and other shellfish. The sandy bottom is covered in places by seagrass and sea-squirts. These areas are patrolled by small sharks and fish.

The landscape and seascape of the sanctuary are an intrinsic element of *Country* of the Traditional Owners. The natural beauty of the sanctuary and surrounds are the basis of a treasured lifestyle for local residents and an integral part of its attraction for visitors.

Landscape character types are used to broadly characterise different landscape types outside urban settlements (DSE 2006). The landscape character of the urban area around the sanctuary was not assessed. Details about landscape management objectives and guidelines are provided in the Municipal Reference Document for the area.

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

The City of Wyndham's Planning Scheme (WCC 1999) regulates developments on the adjacent area to protect the sanctuary's landscapes (section 7.2).

Aims

- Protect landscape and seascape values within the sanctuary.

- Minimise visual impacts on the seascape and landscape, including those associated with management activities.

Management strategies

- *Minimise the impacts of management activities within the sanctuary, Coastal Park and Wetlands on landscape values of the sanctuary by ensuring they are sensitively integrated with their natural settings.*
- *Liaise with Wyndham City Council to ensure that seascape and landscape values associated with the sanctuary are recognised in relevant planning and development (section 7.2).*
- *Consider 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).*

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. Two exotic pest species have been recorded in the sanctuary: European Fanworm and Japanese Kelp (Wakame) (Hart et al. 2003). European Fanworms can affect the recruitment of other sessile organisms onto the substrate (Hollaway & Keough 2002). Japanese Kelp can cause substantial alterations to subtidal reef communities by out-competing indigenous species (Hart et al. 2003). The European Shore Crab and Northern Pacific Seastar are common in Port Phillip and are likely to occur in the sanctuary.

The introduction of marine pests into Victorian waters is listed as a potentially threatening process on Schedule 3 of the FFG Act, and the invasion of introduced species that compete with indigenous biota is considered the most serious ecological threat to the sanctuary (section 4.4). 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. However, experience elsewhere has shown that proposals to control established marine pests need to consider fully their likely effectiveness.

The interconnectedness of the marine environment and the ability of many marine pests to migrate over long distances mean that control measures may be feasible only in limited circumstances. For example, using techniques that are successful on land, such as physical removal by hand, might make the situation worse because some marine pests regenerate fully from fragments dislodged during removal. Any 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 into control measures is required.

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 Victoria-wide control arrangements as they relate to the sanctuary.

Management strategies

- *Support DSE in educating Parks Victoria staff, Fisheries Victoria Officers and the community to identify marine pests and methods for preventing their spread.*
- *Encourage and support the Friends and community groups such as Reef Watch, researchers, licensed tour operators and contractors to integrate the identification of marine pests into their activities and to monitor 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 authorised pest programs only where research indicates that control or*

eradication is feasible and likely to be effective or as part of a coordinated regional or national response.

- *Ensure that management vessels operating in the sanctuary are maintained according to Victorian Government boat-cleaning protocols (DSE 2004).*
- *Avoid translocation or new introductions by promoting boat-cleaning protocols for all recreational boats and contractors (section 6.3) in accordance with the DSE brochure 'Aquatic Pests: Treat 'em mean — keep your boat clean'.*
- *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.*
- *Encourage research into marine pests and the development of control programs for marine pests.*

5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

5.1 Indigenous cultural heritage

The coast and sea are culturally significant to Indigenous communities, which have a long association with the Point Cook coastline. Indigenous people have inhabited the Port Phillip region for around 40 000 years, and middens and other artefacts along the coast and near Werribee are evidence that the Kulin Nation have inhabited the area for at least 6000 years. At the end of the last glacial phase, about 6000 years ago, the sea level rose to flood the large plains of Port Phillip, which provided prosperous hunting grounds for kangaroo and the cultivation of Yam Daisy.

The Boonwurrung, Woiwurrung and three other wurrungs (language groups) form the federation group Kulin Nation, which occupies an area covering most of central Victoria. The Kulin people lived as hunters and gatherers for many generations. Seasonal changes in the weather and availability of foods would determine where campsites were located. The importance of the Point Cook and Altona coastline is demonstrated by the density of artefacts and middens throughout the area. Since European settlement the use of the land around the sanctuary has disturbed many middens and artefacts.

The Boonwurrung occupied the Port Phillip and Western Port area, from the Werribee River in the west to the Tarwin River in South Gippsland. The ancestors of the Yalukit Willam clan, one of six clans that make up the Boonwurrung language group, were inhabitants of a small strip of coastline north of Mordialloc Creek, around to the Werribee River. The Yalukit Willam clan frequented the coastal area around Point Cooke to catch fish and gather shellfish from the reefs and to travel and communicate with other clans.

The Woiwurrung — the Wurundjeri people — occupied an area extending north of the Great Dividing Range, east to Mount Baw Baw, south to Mordialloc and west to Werribee River. The Woiwurrung would have visited the sanctuary and surrounding coastal area to communicate and trade with other clans, and to collect food from the reefs.

European settlement and the resulting conflicts, reduction in food resources and introduction of new diseases dramatically reduced the Boonwurrung and Woiwurrung. Clans found it difficult to maintain their way of life and in many places were evicted from their land. Nevertheless the Boonwurrung and Woiwurrung have strong connections with the sanctuary area today.

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

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

Issues relating to the protection of cultural heritage and the involvement of the scheduled Aboriginal community are approached in accordance with these Acts. Under the Commonwealth Act, the Wurundjeri Tribe Land Compensation and Cultural Heritage Council is designated as the scheduled Aboriginal community. Issues relating to native title are dealt with according to the Native Title Act (section 2.5).

There are numerous Indigenous cultural heritage sites in the adjacent Coastal Park. There are no known Indigenous places or objects within the sanctuary, but it is yet to be surveyed.

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 park (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 and in cooperation with the scheduled Aboriginal community and AAV (section 8.3), and in 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 2002b).*
- *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 with the Traditional Owners and the 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 impacts from sanctuary management activities on Indigenous cultural heritage, in consultation with the Traditional Owners, and the 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 Aboriginal Affairs Victoria (section 8.3). Use 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 coastal area of Point Cook was noted by Surveyor-General Charles Grimes in 1803 and by Hamilton Hume and William Hovell in 1824, and named by Captain William Hobson in honour of John M. Cooke, First Mate on HMS *Rattlesnake*, who sailed into Port Phillip on a survey and charting voyage in 1836.

The land adjoining the sanctuary was settled in 1849 by William Drayton Taylor and subsequently occupied by a number of owners, the most notable being Thomas Chirnside. Chirnside purchased the property in 1852 and built the Point Cook Homestead in 1857. The land and homestead played an important part in the Chirnside family's pastoral empire. After the construction of the Werribee Mansion in 1873, the Point Cook Homestead was used primarily as a 'beach house' for family holidays and for raising livestock and breeding racehorses. The Chirnsides built a pier on Point Cooke to ship wool before the Melbourne to Geelong railway was established in 1856 (Parks Victoria 2002a). No visible remnants of this pier remain.

In 1913 the Australian Flying School purchased 734 acres of the Chirnside property. The flying school trained pilots who served in both World Wars. The RAAF, the second independent air force in the world, formed at Point Cook in 1921. The waters of the sanctuary were used by the RAAF during target practice.

In 1920, the Chirnside property was sold to Sydney Dalrymple for farming sheep and wheat. Dalrymple constructed a pier, south of the original pier, of which a number of pylons and cross-beams remain. In 1924, he sold the northern part of the property (the lagoons around the mouth of Skeleton Creek) to Cheetham Salt Works for salt recovery.

Two heritage-listed shipwrecks, the *Diana* and the *Henrietta*, lie within the sanctuary (appendix 3). The *Diana* was a cutter built in

Launceston, Tasmania. It was used to carry firewood to Melbourne from various places around Port Phillip, especially the Mornington Peninsula. On 23 December 1877 it sprang a leak off Point Cooke and ran aground on Point Cooke reef (Foster 1989; R Anderson pers. comm.).

The *Henrietta* was a Bluenose or Nova Scotia schooner built in Gloucester, Massachusetts. Its construction makes it unique in the Port Phillip region. The schooner was used for 20 years to fish off Cape Cod, Newfoundland, and was used in the film *Captain Courageous* before being bought by master mariner Bailey Sawyer in 1935 for a round-the-world voyage. In 1938 Sawyer reached Australia, but cancelled some of his trip because of World War II. The *Henrietta* was in port at Geelong before being taken to Williamstown, but struck the Point Cooke Reef in poor weather. Attempts to refloat it failed and the vessel sank overnight. A few months later the remains of the *Henrietta* were broken up on the reef by a storm (Foster 1989; R Anderson pers. comm.).

Fishers have had a long association with the Point Cook area. The sanctuary's waters were used for recreational and commercial fishing, in particular abalone harvesting.

Heritage Victoria has primary responsibility for the management of shipwrecks and other maritime artefacts within the sanctuary. Parks Victoria has established a Memorandum of Understanding with Heritage Victoria, which identifies respective roles and responsibilities with regard to protection and interpretation of shipwrecks, shipwreck artefacts and other archaeological sites within the boundaries of Marine National Parks and Marine Sanctuaries.

Aims

- Conserve and protect places and values of historic and cultural significance.

- Encourage learning and understanding about the maritime and historic heritage of the sanctuary.

Management strategies

- *Manage places and values of historic and cultural significance in accordance with the Burra Charter of Australia ICOMOS, the provisions of the Heritage Act 1995 (Vic.) and the Historic Shipwrecks Act 1976 (Cwlth) and Parks Victoria's Heritage Management Strategy (Parks Victoria 2003b).*
- *Work with Heritage Victoria to assess the significance of the remnants of the pier and any future management requirements.*
- *Document the history of past use and activity in the sanctuary, and protect any historic places and objects that may be discovered from damaging or inappropriate activities.*
- *Cooperate with and support Heritage Victoria's maritime heritage research programs.*
- *In accordance with the Memorandum of Understanding, support Heritage Victoria's maritime heritage protection and research programs. Consult Heritage Victoria about management activities that might affect known wrecks or artefacts.*
- *Report concerns about shipwreck or relic damage by the environment or by human interference to Heritage Victoria's Maritime Heritage Unit.*
- *Support dive clubs in locating, photographing and reporting the condition of historic shipwrecks, and record the information in Parks Victoria's Asset Management System (section 8.2).*
- *Include historic heritage information in information, education and interpretation programs for the sanctuary (section 6.1).*

6 STRATEGIES FOR VISITORS

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 special natural and cultural values, build understanding of management activities, and help visitors to experience the sanctuary in a safe and appropriate manner. Parks Victoria delivers information, interpretation and education to visitors by various means, including its website, ranger patrols, Park Notes, signage, tourism brochures and other publications, displays, and licensed tour operators. These services may be developed and provided in collaboration with other agencies.

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

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

Interpretive signs and regulatory totems that inform visitors of the sanctuary's location, natural values, recreation opportunities, visitor safety and regulations are located at access points in the Coastal Park and Wetlands, including the Beach Recreation Area, walking tracks, the Point Cook Homestead and the Cheetham Wetlands Staging Area (section 6.2 and figure 2). Large interpretations signs are located at local boat ramps at Altona, Newport (The Warmies) and Werribee South.

Sanctuary boundaries are clearly identified by on-shore and in-shore markers, and their locations are published on Parks Victoria's website, in Park Notes and on navigational charts (section 7.2).

Existing interpretation and education for the sanctuary conveys information on the sanctuary location, boundaries, natural values, recreational activities, safety and compliance. Key themes for the sanctuary focus on natural values, cultural heritage, minimal impact practices and visitor access, sanctuary health, and catchment issues. The impacts of anchoring can be minimised by providing vessel operators with the location of sensitive areas to avoid when anchoring (section 6.3). Providing further information about key themes for the sanctuary would assist visitor appreciation and an understanding of the sanctuary's values.

The delivery of key messages to the community can also be achieved through collaboration with agencies and groups, including Coast Action / Coastcare, Friends of Point Cook Coastal Park and Friends of Skeleton Creek, as well as local schools, whereby these groups can become advocates for the sanctuary among the local community (section 8.2).

Many individuals and school and community groups visit the sanctuary independently. The accessible intertidal beach area and the intertidal reefs at low tide are used for marine education and nature observation. Parks Victoria provides interpretive walks and ranger-led activities within the sanctuary and adjacent Coastal Park for community and school groups, on request. The Information Centre at the Beach Recreation Area is an excellent venue for interpretation. The centre displays a range of interpretive material and is available by appointment with local Parks Victoria rangers. There is also potential for further development of the Information Centre.

Coast Action / Coastcare provides guided walks within the sanctuary during holiday periods. Interpretive walks and talks provide a valuable method of increasing community awareness and understanding of the importance of the sanctuary, its values and threatening processes.

Currently no tour operators are licensed to use the sanctuary, but there are opportunities for education and interpretation activities to be provided by such operators (section 6.7).

Trampling from rockpool rambling could threaten sensitive intertidal communities if visitor numbers and activities are not carefully managed (section 6.5). Parks Victoria has developed minimal impact guidelines (Parks Victoria 2003c) in partnership with providers of education to help manage these activities, and works with the Department of Education to encourage schools to notify Parks Victoria (tel. 13 1963) of intended school group visits. Prior notification allows teachers to obtain relevant information and education materials, the minimal impact guidelines, 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 sanctuary 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).*
- *Integrate signage, visitor information, interpretation and educational material with that in the Coastal Park and Wetlands.*
- *Develop and deliver interpretation related to the following themes:*
 - *geological significance (section 4.1)*
 - *water quality and catchment issues (section 4.2)*
 - *diverse habitats and marine flora and fauna communities (section 4.4)*
 - *sensitivity of values and importance of minimising the impacts of recreational activities including anchoring (sections 4.4, 6.3, 6.4 and 6.5)*
 - *marine pests (section 4.6)*
 - *Indigenous and local cultural heritage (sections 5.1 and 5.2)*

- *management practices to promote protection and foster appreciation by visitors (sections 4.1, 4.2, 4.4, 5.1 and 5.2).*
- *Further develop off-site interpretation and marine educational activities at the information centre in the Coastal Park.*
- *Continue to allow sustainable educational use by school and community groups and liaise with schools, educational organisations, other agencies and community and Friends groups to:*
 - *coordinate educational activities*
 - *ensure the delivery of coordinated and consistent messages about key management strategies and interpretive themes*
 - *actively encourage the use of areas outside the sanctuary for off-site marine education and interpretation*
 - *promote the need for school groups to notify Parks Victoria (on 13 1963) of intended group visits.*
- *Continue to allow sustainable educational use by school and community groups, and ensure that groups adopt the minimal impact guidelines and encourage dispersed use of intertidal areas (section 6.5).*
- *Develop opportunities to discover, experience, and understand the sanctuary's natural and cultural values for those who seek them, 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 park, with the agreement of the Traditional Owners (section 8.2).*

- *Use Indigenous language, as appropriate, for natural features, plants and animals in interpretive material and signs.*
- *Promote opportunities for education and interpretation programs by facilitating partnership arrangements with local schools and providers of marine education programs.*
- *Regularly evaluate information and interpretive and education programs and their success in communicating key themes and management practices.*

6.2 Access

The sanctuary is readily accessible from Geelong and Melbourne. The beaches within the sanctuary and the adjacent Coastal Park are among the few accessible swimming beaches on the north-western coast of Port Phillip.

Visitors can access the sanctuary from the Beach Recreation Area and numerous entry points branching off the beach walking track in the Coastal Park, and from the Cheetham Wetlands Staging Area. For a small fee, the sanctuary can also be accessed from the Point Cook Homestead, at the end of the unsurfaced Homestead Road.

Existing access to the sanctuary from the Coastal Park and Wetlands will be maintained in accordance with the Point Cook Coastal Park and Cheetham Wetlands Future Directions Plan (Parks Victoria 2005b). The Bay Trail is a State Government initiative to create a continuous shared-use trail around Port Phillip. At present, the trail ends on the northern side of Skeleton Creek. A proposed extension would connect the trail through the Wetlands and the Coastal Park to Werribee River (figure 2) and increase visitor access to the sanctuary.

The sanctuary can also be accessed by boat, but there are no boat-launching facilities within the sanctuary (section 4.1). Boats can be launched from several nearby boat ramps, including Newport (the Warmies), Altona and Werribee South. If conditions are favourable small vessels, including canoes and sea kayaks, may be launched and landed by hand on the beach. The intertidal and subtidal reefs and shallow depth of the water around Point Cooke limit launching and landing and access for larger vessels (section 6.3).

The ECC's Government-accepted general recommendation for marine sanctuaries (ECC 2000) permits the maintenance and replacement of existing structures but does not permit activities that cause disturbance to the seabed. Reinstatement of the pier at the Point Cook Homestead could increase accessibility and viability of the homestead and could also increase boat activity within the sanctuary.

Aim

- Facilitate access to the sanctuary with minimal impact on its natural, cultural and landscape values and those of adjacent natural areas.

Management strategies

- *Minimise the impact of adjacent access facilities on the natural, cultural and landscape values of the sanctuary.*
- *Liaise with the managers of local boat-launching facilities to ensure appropriate access to the sanctuary.*
- *Consider any proposal to reinstate the pier at Point Cook Homestead only after:*
 - *an investigation of the impacts on natural, cultural and landscape values deems the proposal to have no detrimental impacts on these values*
 - *an examination of the proposal's consistency with other relevant strategic planning instruments deems it to be consistent with them*
 - *an examination of the proposal's consistency with management objectives for the sanctuary and heritage significance (if any) of the remnants of the pier or pier site (section 5.2 and appendix 1).*

6.3 Recreational boating and surface water sports

The sanctuary's waters are popular for both motorised and non-motorised boating. Scuba diving can also bring motorised boats into the sanctuary (section 6.4). Personal water craft (PWCs) are used in the sanctuary in the warmer months. The sanctuary may also be used for water skiing. Fishing is popular in the waters outside the sanctuary, and motorised

boats may pass through the sanctuary en route to fishing locations.

Sea kayaking and canoeing are becoming more popular in the sanctuary. The sanctuary's waters are also suitable for sailing, windsurfing and kiteboarding.

Marine Safety Victoria determines boating safety rules to establish speed limits, operating zones and conditions, which are gazetted in the *Vessel Operating and Zoning Rules for Victorian Waters*. Parks Victoria is responsible for the management of port infrastructure and recreational boating, including navigational aids in Port Phillip, under the *Port Services Act 1995* (Vic.) (section 7.2). All boating activities, including kayaking and canoeing, are subject to the Marine Act. As in all enclosed waters a speed limit of 5 knots applies in specified circumstances within the sanctuary (MSV 2005). Although the sanctuary is suitable for recreational boating, weather conditions can change quickly and create a safety hazard (section 6.8).

Where conditions are suitable for boating, vessels generally have minimal impact on the sanctuary's values, but vessels operated in shallow areas, particularly around shallow reefs areas and seagrass beds, can damage the seabed through vessel groundings and propeller scouring. Propeller scouring has the potential to fragment seagrass beds, resulting in habitat loss, decreased productivity, and the possibility for further erosion and degradation (section 4.4). Anchoring also has the potential to damage the seafloor, especially sensitive seagrass areas. Vessel operators can minimise damage to seagrass and reef areas by avoiding anchoring over these areas or by anchoring outside the sanctuary (section 6.1).

Motorised and non-motorised vessels (including windsurfers and kiteboarders) can disturb roosting and feeding birds and marine mammals (section 4.4) through excessive vessel noise and fast movement. Hovercraft by their design are able to access the shore line and shallow intertidal areas that are inaccessible to other vessels. When operating as vessels hovercraft can pose a serious threat to seabirds and shorebirds, especially if travelling over exposed intertidal flats. On land they are classed as vehicles that are prohibited from travelling off-road.

The landing of boats, including sea kayaks or canoes, and launching of kiteboards and windsurfers can threaten sensitive areas such as seagrass through trampling. The shallow intertidal reefs in the sanctuary can be hazardous for the launching and landing of vessels. Launching and landing of canoes and sea kayaks, by hand is easiest from the Beach Recreation Area, but no boat launching facilities are provided at this site (figure 2). Vessels can also be launched at several nearby boat ramps (section 6.2). The activities of vessels can also conflict with other users of the sanctuary, especially snorkellers and divers (section 6.8) and swimmers (section 6.5). Private moorings will not be permitted in the sanctuary.

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

The development of themes that relate to boating and the protection of natural values while boating, especially from anchoring, and the incorporation of these into interpretive services in and around the sanctuary could assist in the management of boating-related threats to values (section 6.1).

Parks Victoria, Victoria Police and Fisheries Victoria undertake regular water-based patrols in the area and have contact with recreational boat users. Patrols offer an opportunity for boat users to learn about the sanctuary.

Aim

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

Management strategies

- *Permit boating and surface water activities in the sanctuary in accordance*

with table 1 and the 5 knot speed restriction 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.
- Prohibit the installation of private moorings within the sanctuary.
- Monitor impacts of anchoring and if necessary take appropriate action to reduce any impacts on natural values.
- Monitor boating interactions with sensitive values such as bird and seagrass populations to ensure that they do not impact adversely on those values. If necessary take appropriate action to minimise impacts.
- Investigate the need for navigation aids to provide for the safe navigation of the sanctuary by all vessels.
- Liaise with recreational vessel operators through information, education and interpretation particularly during patrols, to:
 - promote safe and sustainable use
 - raise awareness of boat-cleaning protocols (section 4.6)
 - avoid operating vessels near roosting areas and shallow seagrass areas to minimise impacts of vessel activity (section 4.4)
 - anchor in sand or outside the sanctuary to minimise damage to reef and seagrass areas.

6.4 Diving and snorkelling

Snorkelling and scuba diving enable visitors to experience the underwater environment and view species and habitats that are difficult to observe from the surface, particularly cryptic animals such as seahorses, nudibranchs and cuttlefish. Diving sites within the sanctuary are easily accessible from the shore or by boat.

A series of reefs within the sanctuary and two heritage-listed shipwrecks offer excellent opportunities for diving. Extensive intertidal

reefs and seagrass beds also offer excellent opportunities for snorkelling. There is potential for scuba diving and snorkelling activities to be provided by licensed tour operators in the sanctuary (section 6.7).

Current levels of diving and snorkelling are moderate, but are likely to increase as the sanctuary becomes more widely known. The provision of off-site information can guide and enhance diver experiences (section 6.1). The potential for repetitive long-term damage to sensitive natural values and maintenance issues make the sanctuary an unsuitable site for an underwater diving or snorkelling trail.

Divers and snorkellers need to be aware of the no-take provisions in the sanctuary and can assist in the early detection of marine pests in the sanctuary (sections 4.6 and 8.2), and the detection of unrecorded cultural places and objects (sections 5.1 and 5.2). Educating divers and snorkellers about minimal impact practices and encouraging compliance with codes of practice will minimise adverse impacts and assist with sanctuary management.

Divers and snorkellers need to be aware of potential dangers, particularly from vessels passing through the sanctuary near dive sites (section 6.8). Under the Marine Act, scuba divers must dive with a flag indicating a diver below. Snorkellers are advised to display a flag indicating a diver below when snorkelling to increase their visibility and safety (section 6.8). To ensure diver safety, divers should refer to the Scuba Divers Federation of Victoria (SDFV) *Codes of Practice: General operating guidelines for recreational scuba diving and related activities* (SDFV 2005).

Aim

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

Management strategies

- Permit recreational, educational and licensed tour operator diving and snorkelling activities at dispersed locations in the sanctuary to minimise impacts on sensitive natural values, in accordance with table 1.
- Review impacts from diving and snorkelling and the effectiveness of

management measures and take appropriate action to reduce impacts.

- *Integrate minimal impact messages into existing information, interpretation and education programs (section 6.1).*
- *Provide off-site information and signage to guide divers and snorkellers to suitable areas or underwater routes in the sanctuary.*
- *Do not install fixed structures that define an underwater trail within the sanctuary.*
- *Promote the use of clean diving equipment to prevent the translocation of marine pests (section 4.6).*
- *Promote compliance of snorkellers and recreational scuba divers with relevant codes of practice and Adventure Activity Standards.*
- *Support dive clubs and industry representatives to promote environmentally responsible diving practices.*

6.5 Swimming and shore-based activities

The intertidal area of the sanctuary is popular for shore-based activities. The sandy beaches of the sanctuary are popular for swimming, relaxing, playing, sunbaking, artistic activities, nature observation and walking. The adjacent facilities at the Beach Recreation Area in the Coastal Park include car parks, interpretive panels, picnic shelters, gas barbecues, toilets, change rooms and showers and a playground (figure 2). These facilities also cater for visitors with disabilities.

Visitors need to be aware of safety risks from the natural environment and other users to ensure that they enjoy a safe visit. The basalt cobble reef can be slippery and the cobbles can shift underfoot. There are no patrolled swimming areas within the sanctuary. Visitors need to be aware of any hazardous conditions for swimming (section 6.8). Altona Beach nearby is patrolled and is a more suitable swimming beach in the area.

At low tide a large area of the intertidal reef at Point Cooke is accessible to visitors. Trampling of the intertidal reef and seagrass beds from a large number of visitors and

groups could lead to significant damage to fauna and flora, and in some sites a reduction in biodiversity (Povey & Keogh 1991). Visitors could also disturb roosting and feeding seabirds and shorebirds (section 4.4).

Visitors including school groups and licensed tour operators can help protect the sanctuary by adopting sustainable or minimal impact practices while walking on the intertidal areas or undertaking rockpool rambles. Minimal impact guidelines developed by Parks Victoria provide information on minimal impact practices for visitors and school groups (Parks Victoria 2003c). Off-site interpretation could also help to minimise the impact of large groups on sanctuary values.

When required, the accessible intertidal areas of the sanctuary will be cleaned of litter and accumulated rubbish will be removed (section 4.2). The collection of living or dead intertidal organisms, rocks and natural driftwood is prohibited within the sanctuary (section 4.4).

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

Aim

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

Management strategies

- *Permit shore-based recreational activities in accordance with table 1.*
- *Manage shore-based activities to reduce impacts on the natural values and minimise damage associated with trampling by:*
 - *encouraging all visitors to the sanctuary, particularly groups, to comply with Parks Victoria's minimal impact guidelines (Parks Victoria 2003c)*
 - *voluntary protocols (e.g. booking systems) for educational institutions and other organised groups*

- *undertaking regular patrols during popular periods and times to encourage appropriate visitor use.*
- *Reduce impacts on natural values, particularly from trampling during visits by groups, by ensuring that:*
 - *students are adequately supervised while in the sanctuary*
 - *school group sizes do not exceed class sizes (maximum 30 participants per leader)*
 - *formal interpretation and other groups do not exceed 25 participants per leader*
 - *groups are dispersed over a suitable area, and locations are varied to reduce pressure, especially during high-use periods.*
- *Minimise disturbance to seabirds and shorebirds by encouraging visitors to avoid roosting and feeding habitat, especially at the remnant pier roost site and Point Cooke (section 4.4).*
- *Encourage research into the impacts of intertidal trampling on intertidal communities with a view to determining an appropriate carrying capacity for the site.*
- *Undertake standardised monitoring of impacts of trampling on intertidal areas from educational use and review the effectiveness of management measures. If impacts increase, work with users to develop an appropriate carrying capacity for the reefs and consider limiting or reducing annual visitation numbers.*

6.6 Dogs and horses

Dogs and horses have not been permitted in the adjoining Coastal Park and Wetlands and the area that is now the sanctuary for over 25 years. There are various other areas nearby for walking dogs, including on beaches and off-lead. It is proposed that dogs on leads will be permitted on the bay trail when it is extended through the Coastal Park and Wetlands to the Werribee River.

Dogs are incompatible with the aims and objectives of areas managed under the National Parks Act, including the sanctuary, and are generally prohibited from National

Parks. The sanctuary protects beaches, intertidal basalt reefs, mudflats and offshore banks that provide roosting and foraging areas for birds. Areas of the sanctuary, Coastal Park and Wetlands form part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.

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

Aim

- Protect the sanctuary's natural values and ensure visitor safety.

Management strategies

- *Continue to exclude dogs and horses 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 and the benefits of responsible dog ownership through Marine Notes, information signs and ranger patrols.*

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 one tour operator is licensed to conduct sea kayaking tours in the sanctuary. There are further opportunities for licensed tour operators to conduct marine educational activities and adventure activities such as scuba diving and snorkelling in the sanctuary (sections 6.1 and 6.4).

Activities 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

- Provide opportunities for and encourage the provision of external tourism services that do not detrimentally impact on the natural and cultural values of the sanctuary.

Management strategies

- *Ensure that all tour operators using the sanctuary are licensed and promote awareness of Adventure Activity Standards and the Minimal Impact Guidelines.*
- *Encourage licensed tour operators to develop and deliver guided tours that enhance the sanctuary experience of visitors, and promote the use of licensed tour operators to enhance and maintain visitor safety (sections 6.1 and 8.2).*
- *Ensure that tour operators comply with permit conditions, Parks Victoria Minimal Impact Guidelines and the Adventure Activity Standards.*
- *Ensure that licensed tour operators provide a range of appropriate activities for an appropriate number of visitors, and at recommended sites (sections 6.1, 6.4 and 6.5) that are compatible with the protection of sanctuary values.*
- *Work with licensed tour operators and the tourism industry to assist with the delivery of appropriate sanctuary information.*
- *Monitor the effectiveness of tourism services in contributing to the objectives of the National Parks Act.*

- *Work collaboratively with licensed tour operators and Tourism Alliance Victoria to ensure:*
 - *the provision of a high-quality service*
 - *that tour operator activities are based on minimal impact practices*
 - *that information conveyed to visitors on tours is consistent with the management objectives for the sanctuary.*
- *Provide opportunities and encourage the Traditional Owners to facilitate cultural heritage tours (section 6.1).*
- *Encourage licensed Indigenous tour operators to add to the tourism experience in the sanctuary by developing and delivering interpretive and educational tours on Indigenous culture and history.*

6.8 Public safety

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

The intertidal area attracts a large number of visitors. Potential dangers for land-based activities or intertidal rock rambling include slippery and unstable rocks, broken glass and rubbish, venomous fauna and large waves. Shore-based 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. Beaches in the sanctuary are rated 'safest' (Short 1996). However, there are no patrolled swimming areas within the sanctuary and visitors should exercise caution while swimming. The beach at Altona is patrolled by lifeguards from the Altona Life Saving Club.

Although some sites in the sanctuary may appear inviting for water sports, the presence of vessels, rocks and wave energy can make conditions dangerous. While the underwater

environment of the sanctuary has great appeal for snorkelling and diving, visitors undertaking in-water activities 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 large waves, venomous marine animals, and exposure to cold.

Vessels can also be a risk to swimmers, snorkellers and scuba divers, and vessel operators need to be aware of their presence in the water. Under the Marine Act, scuba divers must display a flag indicating a diver below. Snorkellers are advised to 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.

Vessel operators also need to be aware of the changing weather conditions, tide heights and the local environment, and the presence of other vessels. 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 metres in length (Bugeja 2003).

Marine Safety Victoria conducts safety and awareness programs for recreational boat users, and the *Victorian Recreational Boating Safety Handbook* contains necessary safety information and outlines the requirements for operating a recreational vessel in Victoria (MSV 2005) (section 6.3).

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 emergency incidents, where required.

Relevant agencies respond to incidents in the sanctuary in accordance with the Municipal Emergency Response Plan. Parks Victoria's response to emergency incidents during normal operating activities in the sanctuary is guided by the Point Cook Coastal Park Emergency Management Plan (Parks Victoria 2004).

Under the *Port Services Act 1995* (Vic.), Parks Victoria is the Local Port Manager of Port Phillip and manages the safety and environment of the port in accordance with a Safety and Environment Management Plan (Parks Victoria 2005c).

Aims

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

Management strategies

- *Provide relevant visitor safety information (section 6.1) and encourage visitors to adopt safe operating guidelines appropriate to their activity.*
- *Promote the use of 'diver below' flags by snorkellers.*
- *Provide annual risk and emergency response briefings to Friends and volunteer groups operating within the sanctuary.*
- *Cooperate with and support responsible agencies in emergency response and ensure that Parks Victoria staff have adequate levels of training in emergency procedures.*
- *Liaise with Wyndham City Council to ensure that the Municipal Emergency Response Plan makes adequate provision for likely incidents in the sanctuary.*

7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

7.1 Authorised uses

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

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. This is achieved through a permit system for all filming and photography conducted as part of a trade or a business. Amateur photographers or people taking film or video for personal or hobby interest do not require a permit.

All research and monitoring undertaken in the sanctuary by external partners or individuals requires a research permit under the National Parks Act, issued by DSE.

Marine Sanctuaries are generally avoided as locations for Defence Force training exercises, although they are sometimes used for 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.

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 and/or earth resources legislation. Petroleum exploration, such as seismic survey 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 relating to the sanctuary. The construction of pipelines or laying of seafloor cables is prohibited in any part of the sanctuary.

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 seek review of authorisations, if necessary, to arrest impacts.*
- *Permit Defence Force adventure training and field navigation exercises in the sanctuary in accordance with Parks Victoria's operational policy and relevant permit conditions.*

7.2 Boundaries and adjacent uses

The sanctuary is large (290 ha), and the prominence of Point Cooke makes it relatively easy to identify. The boundaries of the sanctuary are adequately marked and are clearly visible from both land and sea (figure 2). Yellow onshore triangles mark where the sanctuary boundary intersects the coast; the triangles point toward the sanctuary. A series of 'Special Marks' — in-water piles with a yellow cross and yellow buoys — define the water boundary of the sanctuary. Special Marks are also used to indicate a special area or feature, the nature of which may be found by consulting a navigational chart; some examples include spoil grounds, pipelines and recreation areas. Sanctuary boundaries can also be identified using the global positioning system. Their coordinates are published on Parks Victoria's website, in Park Notes and on navigational charts.

Information signs are located at access points to the sanctuary (sections 6.1, 6.2; figure 2).

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

The adjacent Point Cook Coastal Park and Cheetham Wetlands are managed for conservation and recreation by Parks Victoria under the provisions of the *Crown Land (Reserves) Act 1978* (Vic.) (figure 2). Management of these areas is guided by the *Point Cook Coastal Park and Cheetham Wetlands Future Directions Plan* (Parks Victoria 2005b). The Coastal Park and Wetlands are modified environments with large areas of semi-natural vegetation and wetlands that have significant natural and cultural values. The Coastal Park provides good access to the sanctuary, as well as recreational and parking facilities.

The Point Cook RAAF base to the south of the sanctuary is managed by the Department of Defence. The future use of this site may impact on the management of the sanctuary (Parks Victoria 2005b).

The City of Wyndham is one of the fastest-growing areas of metropolitan Melbourne. Residential developments proposed will border the Coastal Park and wetlands and much of surrounding area. Under Wyndham City Council bylaws, cats must be restrained between 10.00 pm and 6.00 am.

The *Wyndham City Planning Scheme* (WCC 1999) provides a statutory framework for managing proposals and developments adjoining the sanctuary, Coastal Park and Wetlands. The scheme is administered by Wyndham City Council and extends to the high water mark. Under the scheme, the majority of the coast area adjoining the sanctuary is zoned Public Conservation and Resource, but the area around the Point Cook Homestead is zoned Public Park and Recreation. To comply with the *State Planning Policy Framework* (DSE 2003a), the area abutting the sanctuary should also be zoned Public Conservation and Resource.

The heritage precinct around the Point Cook Homestead has a heritage overlay, which specifies local objectives and requirements that must be met by a development application. These limit building on the adjacent foreshore to the existing buildings and do not allow for extensions.

The Point Cook Homestead is very close to the shore in the Coastal Park and, over time, may be affected by rising sea levels and coastal erosion. Erosion of the coastline adjacent to the homestead has occurred during storms (J. Argote pers. comm.) (section 4.1). Coastal modifications and other changes to the hydrodynamics nearby or adjacent to the sanctuary, including artificial renourishment of the beach, could affect the natural and other values of the sanctuary through longshore drift, deposition and erosion. All coastal uses and developments or modifications require permission from the Secretary to DSE under the *Coastal Management Act 1995* (Vic.)

Parks Victoria is the Local Port Manager for Port Phillip under the *Port Services Act 1995* (Vic.). Under this legislation, Parks Victoria is responsible for the management of port infrastructure, including breakwaters, piers and jetties, and navigational aids, and the preparation and implementation of the *Safety and Environment Management Plan for the Local Port of Port Phillip* (sections 4.2 and 6.8) (Parks Victoria 2005c).

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

The deepening of sections of Port Phillip's shipping channels by the Port of Melbourne Corporation in 2007 to allow larger container ships to enter the port has the potential to affect the sanctuary, at least temporarily (POMC 2004; 2007).

Aims

- Effectively communicate the location of the sanctuary boundaries.

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

Management strategies

- *Maintain boundary markers, signs and information facilities that identify sanctuary boundaries.*
- *Ensure minimal impacts on the sanctuary from any future measures designed to prevent coastal erosion from affecting the adjacent homestead.*
- *Liaise with the Wyndham City Council to seek an amendment of the planning scheme to rezone the area around the Point Cook Homestead and the area within the sanctuary as a Public Conservation and Resource Zone.*
- *Work with DSE and consult Wyndham City Council to ensure that works and developments near the sanctuary have minimal impact on sanctuary values (section 4.2).*
- *Support Wyndham City Council's existing cat curfew local law in residential areas and promote the benefits for the sanctuary.*
- *Liaise with the Point Cook RAAF base to ensure that any future development does not impact on the sanctuary.*
- *Ensure that marine safety initiatives within the sanctuary and adjacent waters, including the implementation of Port Safety and Environment Management Plan, improve environmental protection and visitor safety in the sanctuary.*
- *Liaise with the Port of Melbourne Corporation to minimise the risk of oil and chemical spills associated with port activities, the outer anchorage area and the nearby shipping lane on the sanctuary.*

8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

8.1 Community awareness

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

The Friends of Point Cook Coastal Park and Friends of Skeleton Creek have a connection with the sanctuary and can help to raise community awareness about the sanctuary through the participatory experiences of volunteer activity, through local publicity and through their social networks (section 8.2).

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

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

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

Aims

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

sanctuary in community groups and individuals.

Management strategies

- *Promote opportunities for community members to improve sanctuary management through taking shared responsibility and becoming directly involved through interpretation and other information (section 6.1).*
- *Inform the wider community about the work of Friends, volunteers and community groups.*
- *Promote the benefits of assisting with sanctuary programs to community groups, in line with 'Healthy Parks Healthy People' objectives.*
- *Partner with community groups to identify opportunities to increase public awareness about the sanctuary.*

8.2 Community participation

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

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

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

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.

A small network of Friends groups exists in the Point Cook area. The Friends of Point Cook Coastal Parks is a volunteer group concerned with the wellbeing of the parks adjoining the sanctuary. Coastal conservation works have been the primary focus of the group's activities. The Friends of Skeleton Creek are also actively involved in the conservation of the nearby area.

A Sea Search group was established in 2006 to study the sanctuary's unique environment. The members of the sanctuary's Sea Search group are working with Parks Victoria staff to systematically monitor the intertidal reefs in the sanctuary as part of the Victorian Intertidal Reef Monitoring Program. The monitoring undertaken by the group will provide information on the condition of the flora and fauna in the sanctuary and how it changes over time.

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

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

Aims

- Encourage and support the active participation of community groups and volunteers, particularly Traditional

Owners, in 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 maintain and strengthen a collaborative relationship with Friends, volunteer and community groups to ensure sustainable and rewarding volunteer experiences.*
- *Promote the activities of the Friends of Point Cook Coastal Parks and support them in assisting the sanctuary's management.*
- *Coordinate opportunities for Friends and volunteer and community groups to share experiences and discuss management objectives and work programs and progress in implementing the plan with Parks Victoria Rangers.*
- *Encourage and support Sea Search and Reef Watch to continue to acquire knowledge of the sanctuary's values, and other interest groups to develop an understanding and appreciation of these values and the rich and diverse cultural values of the sanctuary.*
- *Support initiatives which build the capability of community members and groups to effectively contribute to sanctuary management objectives.*
- *Maintain ongoing dialogue with active groups, neighbouring clubs and community groups with a broad community agenda, as well as appropriate training and other measures that better enable their participation in managing the sanctuary.*
- *Promote and support such groups to work with each other and with Parks Victoria to achieve shared goals for the sanctuary.*
- *Promote and support Coast Action / Coastcare programs within the sanctuary, particularly focusing on community interpretation and education.*

- *Work to continue to build, and strengthen and maintain relationships with relevant Indigenous communities. In particular, seek to further develop a close inclusive working partnership with the Traditional Owners and cooperation with the scheduled Aboriginal community.*
- *Partner community groups in fostering ongoing community engagement that captures the diversity of people, ideas and opinions present in the community.*
- *Encourage visitors to assist with compliance management by:*
 - *reporting illegal fishing to the Fisheries Victoria offence reporting hotline*
 - *reporting other offences against the National Parks Act to the Point Cook Parks Victoria office.*
- *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.*

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, Parks Victoria staff work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

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

stranding or entanglement operating at the direction of DSE (sections 4.2 and 4.4).

As part of agreed service delivery arrangements, Fisheries Victoria – Department of Primary Industries has primary responsibility for enforcement to ensure compliance with the fishing prohibitions in 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 *City and Bays Regional Compliance Plan* (Parks Victoria 2003a).

The Central Coastal Board provides direction and policy advice to facilitate sustainable development of the central region of the Victorian coast through the implementation of the *Victorian Coastal Strategy* (VCC 2002) and *Coastal Priorities for the Central Region* (CCB 2003) (section 4.2).

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

The 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. EPA Victoria also develops and implements State Environment Protection Policies (SEPPs) for Victorian waters and facilitates the development of Neighbourhood Environment Improvement Plans (NEIPs), which enable communities to work towards achieving local environmental improvements (section 4.2).

Melbourne Water manages rivers, creeks and major drainage systems throughout the Port Phillip and Western Port region. Melbourne Water has the primary responsibility for maintaining or improving the ecological health of rivers and creeks through erosion control,

protecting riverbeds and banks, revegetation, weed control and by ensuring sufficient flows. Melbourne Water and Wyndham City Council manage stormwater runoff and associated inputs into the waters near the sanctuary in accordance with the *Operating Charter for Waterways and Drainage* (Melbourne Water 1999). Wyndham City Council and Hobsons Bay City Council also work to improve the water quality of waterways near the sanctuary (section 4.2).

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

Wyndham City Council administers the planning scheme for land adjoining the sanctuary, including assessing developments that could have an impact on sanctuary values. Parks Victoria provides input into planning applications to ensure that sanctuary values are protected (section 7.2).

Through Aboriginal Affairs Victoria (AAV), the Department for Victorian Communities (DVC) has responsibility for administering legislation protecting cultural heritage (sections 2.5 and 5.1). AAV and the Cultural Heritage Unit advise 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.

Aim

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

Management strategies

- *Work collaboratively with all agencies to implement the plan vision and directions of the plan, in particular work with:*
 - *The Central Coastal Board on any future plans and strategies that relate to the sanctuary*
 - *DSE regarding future planning and management, including protection of marine flora and fauna from potentially threatening processes*
 - *EPA to minimise impacts associated with the discharge of waste into the environment particularly those from stormwater, boating, shipping, marinas, ports and associated dredging activities (section 7.2) and assist local communities to develop a NEIP (section 4.2)*
 - *Melbourne Water to minimise impacts associated with the discharge of waste into the environment and discharges from waterways*
 - *Fisheries Victoria to implement the fishing prohibition and the City and Bays Regional Compliance Plan*
 - *Wyndham City Council regarding the administration of the planning scheme, including input into adjacent or nearby developments that may impact on the sanctuary and the promotion of responsible pet ownership (section 7.2)*
 - *Marine Safety Victoria on recreational boating safety and marine pollution incidents*
 - *Port Phillip and Western Port CMA to reduce the impacts of land use and catchment management on the sanctuary and develop appropriate actions in the Regional Catchment Strategy*

- *State and regional tourism authorities to promote the sanctuary in regional visitor information centres and regional tourism strategies*
- *AAV on compliance with relevant cultural heritage protection legislation (section 5.1)*
- *Heritage Victoria on heritage management, and compliance with the Heritage Act.*
- *Update contingency plans for marine pollution incidents, such as oil and chemical spills and cetacean/wildlife incidents as required, and communicate arrangements to staff, relevant agencies and interested parties.*

9 PLAN IMPLEMENTATION

9.1 Delivery and reporting

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

A priority list of all the strategies in the plan will be used to guide routine management, and identify 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 implementation of the plan, Parks Victoria will work in partnership with the Traditional Owners and the scheduled Aboriginal Community. On-going collaborative activities with the relevant Indigenous communities, interested members of the community, scientists and agencies in realising the vision and management directions for the sanctuary will be especially important as outlined in previous sections of the plan.

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

In implementing the plan, management will respond to monitoring and research information as it emerges. Parks Victoria's Environmental Management Framework makes this possible. Based on the International Standard for Environmental Management Systems (ISO 14001), the framework ensures

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

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

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 2003d) 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 appropriate 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
- an activity, development or use which conflicts with the provisions of the plan is approved by government (such as native title outcomes)
- significant changes in visitation or use
- a change in policy that calls into question plan objectives
- new legislation (such as significant boundary changes).

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 benefits 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.
- Improving 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 the wider community.
- Clear identification of major knowledge gaps.

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

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

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

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

Anoxic – an absence or deficiency of oxygen.

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

Artefacts – an object produced or shaped by human craft, especially a tool, weapon, or ornament of archaeological or historical interest.

Attrition – a rubbing away or wearing down by friction.

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

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

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

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

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

Biota – the combined flora and fauna of a region.

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

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

Cetacean – marine mammals of the order Cetacea, including the whales, dolphins, and porpoises, characterized by a nearly hairless body, anterior limbs modified into broad flippers, vestigial posterior limbs, and a flat notched tail.

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

Coastal Park – Point Cook Coastal Park.

Coastline – generally, where the land meets the sea.

Competition – an interaction between or among two or more individuals or species in which exploitation of resources by one affects any others negatively.

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

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

Crown land – land belonging to the State.

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

Cryptic – tending to conceal or camouflage.

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

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

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

Diatom – a microscopic unicellular alga.

Dinoflagellate – small protozoan of the order Dinoflagellata, characteristically having two flagella and a cellulose covering and forming one of the chief constituents of plankton; including bioluminescent forms and forms that produce red tide.

Disturbance – a rapid change in an environment that greatly alters a previously persistent biological community.

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

Ebbing – receding tide.

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

Ecologically sustainable development (ESD) – development that improves the total quality of life

both now and in the future, in a way that maintains the ecological processes on which life depends.

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

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

Exotic marine organism/species – refer to *Pest*.

Flooding – advancing tide.

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.

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

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

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

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

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

Groundwater – water beneath the earth's surface, often between saturated soil and rock, that supplies wells and springs.

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

Heritage – a, place, activity, cultural way of life, structure or group of structures that have aesthetic, historic, scientific or social value for past, present or future generations.

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

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.

Indigenous vegetation – vegetation species that occur naturally in a region.

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

Interglacial – occurring between glacial epochs.

Intertidal – 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, crustaceans, molluscs).

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

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.

Mangrove – any of various similar shrubs or trees, especially of the genus *Avicennia*, having stilt-like roots and stems and forming dense thickets along tidal shores.

Marine National Park – in Victoria, highly protected areas reserved and managed under 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 Sanctuary – in Victoria, a small, highly protected area reserved and managed under 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.

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

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

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

Morphology – (geomorphology) the characteristics and configuration and evolution of rocks and land forms.

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

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

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

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.

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

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

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

Predation – the consumption of one organism by another.

Ramsar Convention on Wetlands – an international agreement created in Ramsar, Iran in 1971 to recognise wetlands of international importance.

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

Relevant Indigenous communities – includes the Traditional Owners, and any scheduled Aboriginal Community/s for areas included in the park.

Remnant vegetation – remaining natural vegetation.

Saltmarsh – a coastal habitat consisting of salt-resistant plants residing in an organic-rich sediment accreting toward sea level.

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 park.

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

Sedimentation – the deposition of sediment on a surface.

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

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

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

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

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

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

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

Subtidal – waters below the low-tide mark.

Surfactants – a surface-active substance.

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

Toxicant – a poison or poisonous agent.

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 park area that is based on direct descent from the original Indigenous custodians of Country, in accordance with Indigenous tradition.

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

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

Understorey – organisms living beneath a canopy of taller species.

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

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

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

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

Wetland – land where saturation by water is the dominant factor for soil type and plant and animal communities (e.g. tidal areas, saltmarshes and mangroves).

Wrack – seaweed and other organic material that has been washed ashore.

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

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

CRIMP – Centre for Research on Introduced Marine Pests

CSIRO – Commonwealth Scientific and Industrial Research Organisation

DIVA – Dive Industry Victoria Association

DPI – Department of Primary Industries

DSE – Department of Sustainability and Environment, formerly NRE

DVC – Department of Victorian Communities

ECC – Environment Conservation Council, formerly LCC

EPA – Environment Protection Authority

EPBC – Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)

FFG – Flora and Fauna Guarantee

HBCC – Hobsons Bay City Council

IMCRA – Interim Marine and Coastal Regionalisation for Australia

IUCN – International Union for the Conservation of Nature

JAMBA – Japan-Australia Migratory Bird Agreement

LCC – Land Conservation Council

MSV – Marine Safety Victoria

NEIP – Neighbourhood Environment Improvement Program

NRE – former Department of Natural Resources and Environment

NRMPA – National Representative System of Marine Protected Areas

PWC – Personal Water Craft

SDFV – Scuba Divers Federation of Victoria

SEMP – Safety and Environment Management Plan

SEPP – State Environment Protection Policy

TFMPA – Taskforce for Marine Protected Areas

VCC – Victorian Coastal Council

WCC – Wyndham City Council

APPENDIX 1 MANAGEMENT OBJECTIVES FOR MARINE SANCTUARIES

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

17D Marine national parks and marine sanctuaries

(3) The Secretary must –

(a) ensure that each marine national park and marine sanctuary is controlled and managed in accordance with the objects of this Act. in a manner that will –

- (i) preserve and protect the natural environment and indigenous flora and fauna of the park and any features of the park which are of geological, geomorphological, ecological, scenic, archaeological, historic or other scientific interest; and
- (ii) promote the prevention of the introduction of exotic flora and fauna into the park; and
- (iii) provide for the eradication or control of exotic flora and fauna found in the park; and

(b) subject to paragraph (a) –

- (i) provide for the use, enjoyment and understanding of Marine National Parks and Marine Sanctuaries by the public; and
- (ii) promote 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 12 submissions were received of the Draft Management Plan, comprising 11 from organisations, one from an individual and three marked confidential.

ORGANISATION/ INDIVIDUAL	SUBMISSION NUMBER
SUBMISSIONS FROM ORGANISATIONS	TOTAL: 10
Heritage Victoria	1
Tourism Alliance Victoria	2
DPI - Fisheries Victoria	3
EPA Victoria	4
Australian Marine Conservation Society	6
Department for Victorian Communities - Aboriginal Affairs Victoria	7
Bird Observers Club of Australia	8
Hobsons Bay City Council	10
Confidential	12
Confidential	9
Confidential	5
SUBMISSION FROM INDIVIDUALS	TOTAL: 1
Clare Johnston	11

APPENDIX 3 SHIPWRECKS

SHIPWRECK NAME	COMMENTS
LOCATION KNOWN	
<i>Diana</i>	Wooden cutter built in Launceston, Tasmania in 1841. It was used to carry firewood to Melbourne from various places around Port Phillip especially the Mornington Peninsula. On 23 December 1877 it sprang a leak off Point Cooke and ran aground on Point Cooke reef.
<i>Henrietta</i>	Bluenose or Nova Scotia schooner built in Gloucester, Massachusetts. Its construction makes it unique in the Port Phillip region. The schooner was used for 20 years to fish off Cape Cod, Newfoundland, and was used in the film Captain Courageous before being bought by master mariner Bailey Sawyer in 1935 for a round-the-world voyage. In 1938 Sawyer reached Australia, but cancelled some of his trip because of World War II. The <i>Henrietta</i> was in port at Geelong before being taken to Williamstown, but struck the Point Cooke Reef in poor weather. Attempts to refloat it failed and the vessel sank overnight. A few months later the remains of the <i>Henrietta</i> were broken up on the reef by a storm.

Source: Foster (1989); R. Anderson pers. comm. (2005)

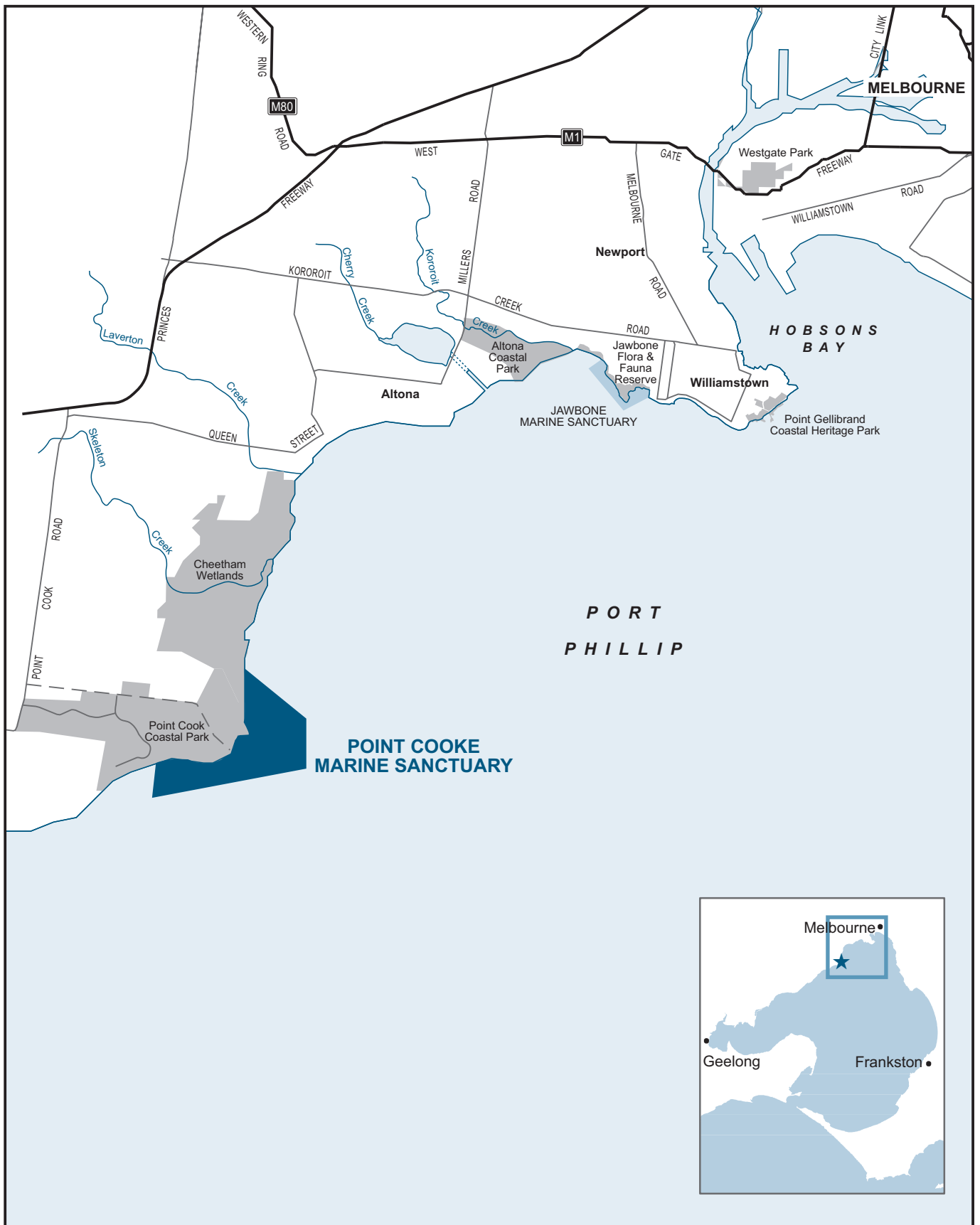








Figure 1
LOCATION
POINT COOKE MARINE SANCTUARY

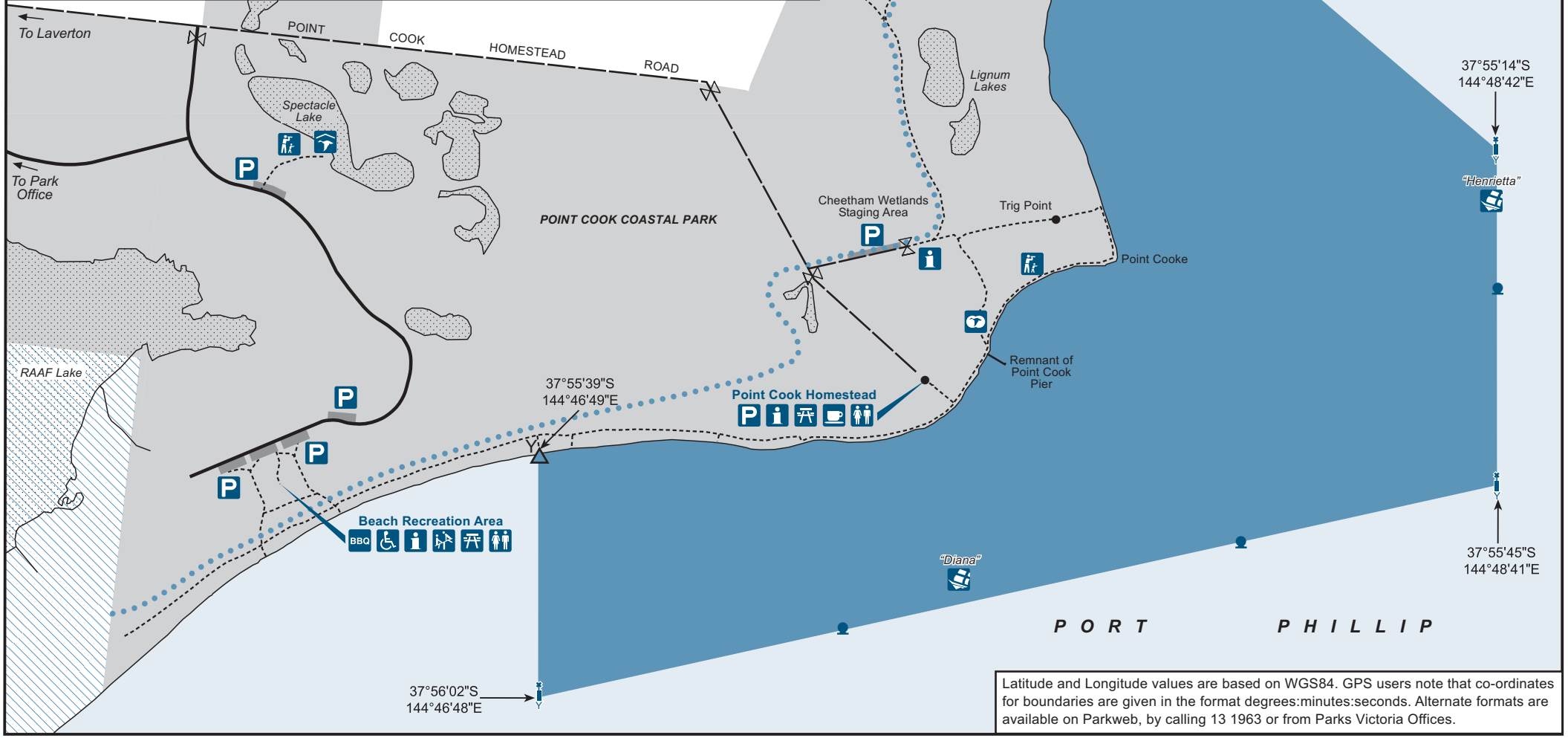
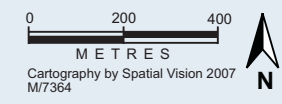
-  Freeway/Highway
-  Major sealed road
-  Major unsealed road
-  Point Cooke Marine Sanctuary
-  Jawbone Marine Sanctuary
-  Other Parks



POINT COOKE MARINE SANCTUARY

Figure 2

- | | | | | | | | |
|--|--|--|---|--|---|--|------------------|
| | Major sealed road | | Gate | | Barbecue | | Lookout |
| | Major unsealed road | | Water channel | | Bird hide | | Park information |
| | Walking track | | Point Cooke Marine Sanctuary | | Bird watching | | Picnic table |
| | Proposed Bay Trail | | Coastal Park & Wetlands | | Carpark | | Playground |
| | Carpark | | RAAF Williams Point Cook Base (Prohibited Area) | | Facilities for people with disabilities | | Tea house |
| | Shore boundary marker (Colour indicated by letter) | | Enclosed waterbody | | Toilets | | |
| | Pylon marker | | Shipwreck | | | | |
| | Marker buoy | | | | | | |



Latitude and Longitude values are based on WGS84. GPS users note that co-ordinates for boundaries are given in the format degrees:minutes:seconds. Alternate formats are available on Parkweb, by calling 13 1963 or from Parks Victoria Offices.