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Protection, use and management of Victoria's  
marine and coastal environment

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## 2.1 Aboriginal interests

### Background

The relationship of Australia's indigenous people to the coastal zone is different to that of other Australians (RAC 1993). It is a relationship based on a long tradition of ownership, stewardship, utilisation and cultural significance, a tradition that continues in many parts of Australia.

The cultural associations and concerns of coastal Aboriginal peoples for the sea and its resources remain strong, even in areas where they have been historically dispossessed. The contemporary cultural importance of the coast to Australia's indigenous people stems from their strong, continuing sense of belonging to and responsibility for particular tracts of country, including both land and sea areas within their traditional estates.

Aboriginal associations with the Victorian marine, coastal and estuarine investigation area are strong, and Aboriginal communities continue to assert their association with all of their ancestral areas. For Aboriginal people, their cultural heritage is enmeshed with their spiritual, ecological and economic connection with the land and sea. There are several Aboriginal groups who associate with the Victorian coast, including the:

- Gunditjmara
- Kirrae-Whurrong
- Kerrup-Jmara
- Wathaurong
- Wurundjeri
- Boonerwung
- Gunai-Kurnai
- Bidawal.

Evidence of earlier Aboriginal occupation of the coast can be found in middens, quarries and burial grounds throughout coastal Australia. Aboriginal shell middens as old as the present coastline (around 5-6000 years) are found in many coastal areas.

In Western Victoria, sites have been dated many thousands of years earlier than the stabilisation of sea levels. For example, Bridgewater Cave west of Portland was first occupied around 11 000 years ago. Most sites are more recent than this however, probably as a result of rising sea levels and coastal erosion destroying earlier sites.

Chapter 5 in the LCC's Descriptive Report (1993) summarises the history and surviving evidence of human association with the coast, including coastal resources, coastal archaeological sites, and accounts of the pre- and post-contact periods.

### Native title

Native title is a title based on the laws and customs of indigenous people which is recognised by the common law of Australia.

Under the Commonwealth *Native Title Act* 1993 indigenous people can claim native title on Crown lands and waters in their traditional lands. Several Aboriginal groups have lodged claims with the National Native Title Tribunal related to land and waters within the investigation area.

In Victoria, Mirimbiak Nations Aboriginal Corporation is the native title representative body; it coordinates native title and acts for native title holders and claimants in relation to matters that may affect their rights and interests in land.

The existence of native title is not dependent on a claim being lodged. A recent High Court decision effectively confirmed the right of traditional use by claimants.

Under the future act provisions of the Native Title Act, there are obligations to notify, receive and consider comments and in some cases negotiate with groups in relation to acts which may affect native title. The obligations may vary according to the type of activity proposed, whether the area to be affected is land or sea, and the tenure of the area to be affected, but the basic thrust of the provisions is that indigenous groups must be consulted about activities proposed to be undertaken on their traditional lands and waters. In the event that obligations are not observed, activities are invalid to the extent that they affect native title. Section 24HA of the Native Title Act is the major provision relating to management of water and living aquatic resources.

The Victorian Government recently announced that an approach of negotiation and mediation would be taken in relation to native title claims in Victoria. Outcomes, in the form of Indigenous Land Use Agreements, would not necessarily involve formal recognition of native title.



Through consultation with Aboriginal groups and communities, the ECC has sought to take into account indigenous interests in marine and coastal issues regardless of what title indigenous people may have to the land, sea and resources. Nevertheless, the ECC notes that native title may exist in regard to some areas and that indigenous people are concerned to ensure that these rights are not inadvertently extinguished or impaired as a result of their own actions or actions by government agencies. In view of these concerns, the ECC stresses that nothing in the recommendations in this report should be taken to prejudice or diminish any native title rights to land, sea and resources as may exist.

### Legislative framework

In addition to the Native Title Act, key legislation includes the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth) and the *Archaeological and Aboriginal Relics Preservation Act 1972* (Victoria).

The Aboriginal and Torres Strait Islander Heritage Protection Act was developed to increase the decision-making role of Aboriginal communities in the protection and management of their cultural heritage (including archaeological sites and objects, traditional places of significance and intellectual property).

The purposes of the Act are the preservation and protection from injury or desecration of areas and objects in Australia and Australian waters, being areas and objects that are of cultural significance to Aboriginal people in accordance with Aboriginal tradition.

The regulations made under the Act define the boundaries of the 'local Aboriginal communities' which have standing under the legislation.

Under the Archaeological and Aboriginal Relics Preservation Act, all archaeological relics and sites are protected. Damage or disturbance without a permit is prohibited. Significant penalties also apply to anyone wilfully defacing, damaging or interfering with an Aboriginal object or place.

These Acts provide regimes whereby Aboriginal people can take part in the preservation of their cultural heritage by being members of committees that advise Ministers, as inspectors with wide-ranging powers, and as members of community organisations that are responsible for managing cultural heritage issues within their areas.



Victoria's indigenous people have a strong relationship to marine and coastal areas. A coastal site is being assessed by an Aboriginal cultural heritage officer.

Photo: Aboriginal Affairs Victoria.

Aboriginal communities believe that the requirements of these Acts and the spirit of the legislation are often ignored by land and water management agencies. Aboriginal people want to be consulted and involved in planning, decision-making and implementation processes at the beginning of these processes, rather than invoking the provisions in the legislation when a problem arises.

### Consultation with Aboriginal groups and communities

As part of its consultative processes for the investigation, both the LCC and the ECC consulted with Aboriginal groups and communities. There have been six formal periods of public consultation throughout the course of the investigation.

In addition, the LCC appointed an Aboriginal liaison officer to consult with the various coastal communities regarding their interests. The liaison officer consulted with communities and prepared two reports for the LCC in 1994 and 1995 following the publication of the Descriptive Report and the Proposed Recommendations.

In order to ensure Aboriginal participation in the public consultation process following the release of the ECC's Draft Report, the ECC commissioned Mirimbiak Nations Aboriginal Corporation to facilitate consultation with Aboriginal groups along the Victorian coast. Mirimbiak is recognised as being a central contact point as it is the native title representative body for Victoria and the peak advocacy group for Aboriginal people. Appendix 3 is Mirimbiak's report to the ECC on the outcomes of consultation with Aboriginal claimant groups and coastal communities.



### **Major issues**

Major issues and concerns raised by Victorian Aboriginal coastal communities are similar to those consistently raised by coastal indigenous peoples around Australia in relation to management of the coast and sea. There are five main areas of concern.

- Dispossession from their traditional land and sea estates, and loss of ancient fishing and hunting rights.
- Concerns about environmental degradation through development, pollution and resource use, and injury to culturally sensitive sites.
- Lack of opportunities for genuine participation in decision making about land and resource management.
- Inadequate responses from governments when administrative or legislative mechanisms are established for involvement in decision making and management.
- Lack of economic and social benefits flowing to indigenous people from projects that commercially exploit resources.

Comments made by Victorian Aboriginal coastal communities and specific issues raised in relation to marine protected areas and aquaculture areas are addressed in the relevant area recommendations in Parts Three and Four of this report.

The Law Reform Commission (1986) and the Resource Assessment Commission (1993) strongly recommended that indigenous interests in environmental management be accommodated. The special rights of indigenous peoples, including recognition of their traditional rights relating to environmental management, are recognised under international agreements such as:

- Agenda 21 (the United Nations Conference on Environment and Sustainable Development 1992)
- Convention on Biological Diversity ILO 169 (Convention Concerning Indigenous and Tribal Peoples in Independent Countries)
- UN Declaration on the Rights of Indigenous Peoples.

Western cultures make a fundamental distinction between the land and the sea. While the land is seen

as layered with proprietary rights, use rights and cultural symbols, the water is seen as empty (Jackson 1995). Most non-indigenous Australians would subscribe to the ethos of unfettered recreational access to the beach, and the western traditions of the freedom of the seas and the common property nature of marine resources.

Generally Aboriginal people do not make the elemental distinction between the land and sea made by European culture. Traditional estates are integrated geographically in that boundaries embrace land, river, estuary, beach, reef, seabed and sea property (Smyth 1993). Recognition and respect for indigenous relationships to the sea is challenging dominant social values even more than has been the experience on land.

### **Recommendations**

- R3** Planning and management relating to traditional interests and uses in coastal and marine areas be based on recognition and respect for the traditional relationship of Aboriginal people with the land and sea.
- R4** Prior to the implementation of recommendations for marine protected areas and aquaculture zones Government consult with Aboriginal communities regarding their interests.
- R5** Government establish mechanisms to improve indigenous land and water management including:
- development of principles and consultation protocols to improve the policy and planning processes of public land and water management agencies and the involvement of Aboriginal communities in these processes;
  - in consultation with Aboriginal groups, preparation of a strategy to improve the involvement of Aboriginal communities in land and resource use decision-making and day-to-day management;
  - provision of information to assist the facilitation of land and water use agreements between agencies and local Aboriginal communities;



- facilitation of surveys and site visits necessary for planning and development purposes; and
- liaison with Aboriginal people and groups on the above.

**R6** A study be undertaken jointly by NRE (including Aboriginal Affairs Victoria) and Aboriginal communities into the nature of traditional interests and uses in Victorian coastal and marine areas.

**R7** NRE (including Aboriginal Affairs Victoria), together with Aboriginal communities, the Fisheries Co-Management Council and the Victorian Coastal Council, review legislation and policies restricting or inhibiting traditional cultural use of public land in coastal and marine areas with a view to removing unnecessary restrictions.

**R8** A review of procedures be undertaken to ensure obligations (eg under the Native Title Act) to notify Aboriginal people of changes in management or regulation of marine waters and living marine resources are being effectively met.

**R9** NRE (including Aboriginal Affairs Victoria) in consultation with Aboriginal groups prepare a report on indigenous fisheries including:

- an assessment of the nature and extent of Aboriginal interests in fisheries;
- current level of participation in fisheries and any impediments;
- level of representation and involvement in fisheries management and any impediments; and
- measures to improve economic and employment opportunities for Aboriginal communities in fisheries and marine aquaculture.

**R10** Cross-cultural awareness programs be developed for land and natural resource agency staff to improve knowledge and understanding of, and communication with, Aboriginal communities.

## 2.2 Objectives for use

Management of the marine and coastal environment should focus on providing an appropriate overall balance of uses, optimising social and economic benefits to the whole community, including future generations, while ensuring long-term sustainability of these activities and protection of biodiversity and other environmental values. Highly protected areas are a cornerstone of strategies to protect biodiversity and to ensure ecologically sustainable use.

Activities in parks and protected areas and other sectors such as fishing, tourism, aquaculture, shipping, coastal development and petroleum must be planned for and managed together so they are compatible with each other and the environment. Integrated planning is essential across the whole of Victoria's marine and coastal environment, including the bays, inlets and estuaries, as well as the adjacent foreshore land and catchments that drain to the coast.

In the ECC's Interim Report published in February 1998, objectives were established that were aimed at achieving the sustainable use of resources, protecting significant environmental values, and maximising social and economic benefits in marine, coastal and estuarine areas. Management objectives for coastal land are established in the Victorian Coastal Strategy (see section 2.8).

At present, most of Victoria's seabed and associated waters are unreserved Crown land. This is a stark contrast with the terrestrial environment, where very little public land remains unreserved. Reservation under the *Crown Land (Reserves) Act* 1978 assists planning and management by providing a clear legislative framework, specifying objectives for use and management, and clearly nominating a land manager.



## Recommendations

**R11** The objectives for use and management of Victoria's marine waters are to:

- conserve natural ecosystems and associated biota;
- maintain the water and sediment characteristics of natural ecosystems and, where these are degraded, progressively improve them;
- protect significant natural and cultural heritage features;
- provide for traditional use and cultural activity by Aboriginal people;
- provide for some areas of minimal disturbance which can be used for scientific study;
- provide opportunities for recreation, education, and tourism;
- provide opportunities for ecologically sustainable harvesting of fish and other biota from wild stock;
- provide opportunities for ecologically sustainable marine aquaculture;
- provide for the exploration and extraction of earth resources, including oil and gas;
- provide for the development of renewable energy resources;
- provide for shipping operations and associated port infrastructure and navigation aids; and
- provide for sea-floor pipelines and communication lines.

**R12** A Coastal Waters Reserve be established for the major portion of Victoria's marine area that is not otherwise designated for a particular purpose (eg marine protected area, aquaculture area). The primary objectives for the reserve be:

- (i) to provide for a diverse range of activities (as in R11 above) that are compatible with long-term sustainable use, and
- (ii) to provide for the integrated management of Victoria's marine, estuarine and coastal area.

The area be reserved under *the Crown Land (Reserves) Act 1978* and managed by the Department of Natural Resources and Environment.

## 2.3 Protection of biodiversity

Victoria has responsibilities and obligations for the protection of marine biodiversity and ecosystems under a number of national and international strategies and conventions to which it is a signatory, such as:

- the Convention on Wetlands of International Importance (the Ramsar Convention 1971),
- the Convention on Biological Diversity (UNEP 1994),
- the National Strategy for Ecologically Sustainable Development (1992),
- the National Strategy for the Conservation of Australia's Biodiversity (1996),
- the Intergovernmental Agreement on the Environment (1992), and
- Japan Australia and China Australia Migratory Birds Agreements (JAMBA 1974 and CAMBA 1986).

Victoria's Biodiversity Strategy was released in 1997. The *Environment Conservation Council Act 1997* states, amongst other things, that the Council must have regard to 'the need to protect and conserve biodiversity'.

Biodiversity means 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.

Animals and plants are closely associated with their habitat; and survival of individual species and communities depends directly on habitat protection. It is generally accepted that protection of biodiversity is best achieved by protecting natural habitats.

In addition, some species may need targeted protection, because of their vulnerability, rarity or special needs, eg seagrass beds, giant kelp (*Macrocystis*) forests, sea-dragons, certain species of sharks and marine mammals are such examples. Appendix 6 includes a summary of Victorian marine invertebrate species of conservation concern. There are a number of mechanisms available to provide protection to such species outside parks and conservation reserves, including the 'protected aquatic biota' provisions of the *Fisheries Act 1995*, and the *Flora and Fauna Guarantee Act 1988*.



The removal of biomass from the ecosystem by harvesting can affect the functioning of the ecosystem by changing predator-prey relationships, and other ecological associations. Establishment of highly protected marine national parks will provide opportunities to study the impacts of harvesting on target and associated species and to compare the community structure and ecological relationships in harvested and unharvested areas.

Many submissions to the ECC's Draft Report expressed concern about the impact of harvesting on Victoria's intertidal areas (see page 27).

### Recommendations

**R13** Further research 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** An assessment 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 as appropriate.

## 2.4 Catchment management

The Senate Inquiry into Marine and Coastal Pollution (1997) concluded that the most serious threats to Australia's marine environment stem from catchment activities.

Diffuse sources of sediments, nutrients and toxicants from catchments draining to the coast pose significant risk to the environmental quality of estuaries and shallow embayments in particular.

Catchment management authorities are responsible for the coordination and management of floodplains, rural drainage including regional drainage schemes, water quality, Crown frontages and heritage rivers outside national parks. They are also the major advisory body to Government regarding funding priorities for catchment management. During 1997, ten regional catchment strategies were prepared by Catchment and Land Management Boards (CaLP) boards. Catchment management authorities (CMAs) have now replaced the previous CaLP Boards and

Waterway Management Authorities in nine of the ten CaLP regions. The CaLP Board has remained in place in the Port Phillip and Westernport Region.

### Why is catchment management important?

The most serious issues in Australia's marine environment stem from poor catchment use, and therefore declining water quality. Increased levels of nutrients and sediments are the major problems.

The major causes are soil erosion and declining inland water quality, two of our greatest problems on land. The crisis in Australia's inland waters is well accepted. Elevated nutrients from soil erosion, agricultural fertilisers, live stock, sewage and urban run-off has resulted in regular blooms of toxic algae. Not so well accepted is that this then becomes a problem in estuaries, coastal lakes, bays and coastal waters. Degradation of estuaries and die-back of seagrass cause declines in coastal fisheries.

The key issues in Australia are thus interrelated. Because the major source of marine environmental threats lie inland in the catchments, strategic, integrated planning and management in the coastal zone is of paramount importance. Integrated catchment management is probably almost as important to the sea as it is to the land.

Source: *State of the Marine Environment Report for Australia 1995*.

The Victorian Coastal Strategy states that the regional catchment strategies will be the primary mechanism to coordinate and improve catchment based activities which impact on the coastal and marine environment. State Environment Protection Policies (SEPPs) will establish the basis for maintaining environmental quality of marine waters. Regional catchment strategies have been prepared for the five catchment regions draining to the Victorian coast:

- Glenelg – Hopkins
- Corangamite
- Port Phillip
- West Gippsland
- East Gippsland.

Catchment activities which affect marine waters are not strongly highlighted in these strategies, although many of the priority programs and actions will lead to an improvement in marine and estuarine water quality.



Regional Coastal Boards also have a role in addressing the effect of catchment activities on coastal waters. For example the Gippsland Regional Coastal Board has prepared a *Coastal Action Plan for Gippsland Coastal Waters* which highlights catchment issues. In general however the Coastal Board identifies CMAs and other agencies as being the responsible authorities.

Many submissions to the ECC's Draft Report commented on the need to address catchment issues as critical for marine environmental management.

**Recommendation**

**R15** Catchment management authorities and boards ensure that reviews of regional catchment strategies specifically address the impacts of land use and management on the marine and estuarine environment, particularly where important physical or biological features may be affected.



Pollution from catchments makes its way to the sea. Litter traps, such as this one on Elwood Canal can help reduce the impact of litter on marine animals and communities.  
 Photo: Melbourne Water

**2.5 Threats**

Many activities have the potential to degrade the quality of the marine environment, particularly its water quality. A high standard of water quality is essential for recreation, fish harvesting, aquaculture and nature conservation. In the past the sea has been seen by many as a convenient and free dumping ground for a wide variety of wastes. It is now recognised that there is only a limited capacity to absorb most forms of waste, particularly in estuaries. In a recent national public survey during scoping for a national oceans policy, water quality was the most important concern of respondents.

The quality of discharges to the marine environment has progressively improved. All coastal sewage discharges in Victoria now receive at least secondary treatment.

The Victorian Environment Protection Authority (EPA) licence conditions now require the discharger of wastes to the marine environment under certain circumstances to monitor not only the quality of wastes but also the condition of the receiving environment.

The Victorian Government has recently announced its new Victorian Stormwater Action Program. The program will improve the management of urban stormwater in metropolitan and regional areas, reducing adverse impacts on the environment.

Introduced plants and animals can become pests and greatly alter marine, coastal and estuarine environments, affecting habitats, displacing indigenous species and disrupting ecosystems. Substantial and irreversible economic and social impacts may result if, for example, fisheries are affected and species become less abundant or unsafe to eat. Some 99 exotic organisms are known to have become established in Victorian waters.

Ship ballast water and hull fouling are major sources of introduced organisms in the marine environment, and effective management of ballast water and hull fouling requires a coordinated response involving agencies beyond Victorian waters.

An Action Statement has been prepared under the *Fauna and Flora Guarantee Act 1988* following the listing of the 'Introduction of exotic organisms into



Victorian marine waters' as a potentially threatening process (NRE 1999), and outlines the actions to be taken to ameliorate the adverse effects of this process. The objectives of the Action Statement are to minimise further introductions, and to manage the spread and minimise the adverse impacts of current and future incursions of exotic organisms. An Interim Victorian Protocol for Managing Exotic Marine Organism Incursions has been prepared (NRE 2000) to minimise the adverse impacts of incursions in Victorian marine waters.

### Recommendations

- R16** A strategy (including targets) be developed by the EPA in consultation with relevant local authorities to phase out the disposal of waste to estuarine waters.
- R17** The EPA, together with the Department of Natural Resources and Environment (NRE) and other responsible agencies, ensure that the results of water quality and sediment monitoring, as well as audits of licensed point source discharges, are regularly reported and readily available to the public.
- R18** Measures 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.
- R19** NRE assess and coordinate management and reporting of risks to the conservation and sustainable use of marine and coastal resources within Victoria's marine, coastal and estuarine area.

## 2.6 Use of marine resources

### Harvesting of living marine resources

A wide range of resources are harvested along the Victorian coast, including many types of fish, molluscs and crustaceans, and some seaweed and seagrass. In these recommendations 'fish' includes scale and cartilaginous fish, aquatic molluscs, crustaceans and echinoderms.

Commercial fishing is an important part of Victoria's food industry and supplies both domestic and export markets. The commercial sector is dynamic; changes to practices include the introduction of total allowable catch or quotas for some sectors, closure of some fisheries, and the modification of gear to reduce by-catch or to reduce pressure on juvenile fish.

Commercial fishing techniques have different seabed and by-catch impacts. Four main fishing techniques affect the seabed: otter-board trawling, Danish seining, haul seining (if nets are dragged across the sea-floor), and scallop or other dredging. In most cases, these techniques also have potentially significant by-catches.

Commercial fishers must provide catch and effort data to Fisheries Victoria. Catch and effort data are systematically collected, but are sometimes unreliable and are not systematically validated. Illegal catch and the largely unknown recreational catch together mean it is difficult to estimate total catch. The resolution of catch data is often too coarse to use for management of smaller areas.

Under the *Fisheries Act* 1995, the Fisheries Co-Management Council oversees the preparation of fisheries management plans. The development of these plans includes community consultation and consideration of biological and ecological factors. Although draft plans have been prepared for some major fisheries such as abalone, no final plans have yet been approved for marine fisheries.

In relation to the marine environment, commercial fishing is the second most important concern of the Australian public, after water quality. Development of new fisheries ahead of any understanding of the fish stocks and the habitat involved has generated a lot of publicity, and has influenced negative public perceptions of commercial fisheries. Recreational and commercial fishing sectors may also be competing for the same, sometimes dwindling, stocks, generating conflict expressed in allegations and counter-allegations about the contribution of each sector to declining fish stocks.

Fisheries Victoria conduct regular stock assessments for the major fisheries, involving scientists and the industry. Although the reports are publicly available, they are technical documents which are not easily accessible by the general public.



Recreational fishing, mostly in the major bays and inlets, is a widespread leisure activity of considerable social and economic importance. It forms a significant part of the pressure on the total fishery resources. The activity is subject to regulation, by way of controls on gear, size limits, bag limits and length of season. The introduction of the Recreational Fishing Licence in Victoria in 1999 improves the accuracy of previous estimates of the number of recreational fishers in marine waters. Up to the end of June 2000 about 240 000 licences had been sold. (This figure includes those who only fish in fresh waters, but does not include fishers under 18 or over 70 or in other exempt categories).

Fish harvesting has implications for ecosystem, habitat and species conservation, and some fishing techniques and current catch levels may be unsustainable.

The collection of intertidal or shallow subtidal organisms for food or bait can have lasting impacts on benthic communities where collection pressure is high. Over-collection of intertidal organisms was one of the major concerns raised by the public during the consultation period, especially for areas of coastline within easy access of major metropolitan centres.

### Tourism and recreation

Victoria's coastal waters offer outstanding opportunities for an extensive range of recreational and tourist activities. In some areas, particular high-profile attractions make a very significant contribution to the tourism industry at the local, State and national levels; for example, the spectacular scenery along the Great Ocean Road, the penguins and seals at Phillip Island, the exceptional whale watching opportunities at Warrnambool, the dolphins in Port Phillip Bay, and historic features, such as lighthouses and historic towns.

For both local communities and Victoria as a whole, the economic benefits of existing recreation and tourism industries are substantial, and there is considerable potential for further benefits from future development. While benefits from tourist attractions should be maximised, care must be taken to protect environmental and cultural heritage values on which these attractions are based.



Diving and snorkelling with seals is a popular ecotourism activity in Victoria. Photo: Peter Kinchington.

### Recommendations

- R20** Fisheries management plans for all major fisheries, as required under the *Fisheries Act* 1995, be completed within three years.
- R21** Fisheries management plans should address the impacts of techniques that involve towing or dragging gear along the sea floor, including consideration of alternatives and establishment of control sites. Note that in some cases marine national parks or marine sanctuaries could act as controls.
- R22** The coverage of the Fisheries Regulations restricting the recreational take of intertidal molluscs and other intertidal invertebrates (formerly the Shellfish Protection Regulations) be reviewed and the restrictions extended to additional areas in Victoria if necessary.
- R23** The accuracy and resolution of fisheries catch and effort data be progressively improved to provide information required for both sustainable resource use and biodiversity protection.
- R24** Non-technical State of the Fisheries reports be prepared on a biennial basis and made widely available. These reports should be based on stock assessment reports and the assessments required to be prepared annually by the Fisheries Co-Management Council, and should also include an assessment of existing knowledge, and how factors other than fishing may be influencing sustainability.



**R25** Commercial harvesting proposals for new or developing fisheries (including live reef fish) or for harvesting of marine resources such as seaweed, be subject to:

- declaration as developing fisheries under the Fisheries Act 1995 and relevant Regulations;
- adequate stock assessment; and
- an environmental assessment that considers physical, environmental and ecological processes and involves community consultation.

**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 or offshore areas, other than to meet safety and security requirements that cannot be achieved in other ways.

**R27** Codes of practice be developed with relevant tourism and recreation organisations to encourage responsible use of vulnerable marine and coastal areas and resources.

**R28** Consistent with the approach for some national parks and reserves on land, where it is appropriate and practicable, and where tourism activity occurs on public land (including waters), a contribution be made by the tourist operator or individual visitor, through appropriate fees or licences, which can be applied to the protection and maintenance of the area or relevant values.

## 2.7 Implementation and management

### Background

Disquiet was expressed in many submissions about the implementation and ongoing management of marine protected areas resulting from ECC recommendations. In particular, there were concerns about whether adequate funding would be provided to manage areas effectively. Many submissions referred to existing levels of resourcing for marine-based management which were widely

perceived to be inadequate. The ECC stresses the importance of adequate resourcing and effective management for protection of Victoria's marine, coastal and estuarine area. Four key areas are highlighted in relation to management of marine and coastal areas: community involvement, compliance, legislation, and research and monitoring. Also see section 2.1 in relation to Aboriginal involvement in management.

### Community participation

Community education and involvement are vital for the sustainable management of the marine and coastal areas.

An informed community that appreciates and understands the values, diversity and sensitivity of these environments and the impacts of uses will enjoy these areas more, and facilitate management goals. Active participation in planning and implementation enhances a sense of community responsibility and stewardship, to the benefit of all concerned.

Community, recreational club and school education programs play an important part in increasing community awareness. Other programs, notably Landcare and the Coast Action program, enable people to be directly involved in local planning and management. The Fish for the Future and Fishcare programs aim at sustainable fish populations. The national Coastcare program builds on existing community activities and management arrangements. The ECC considers it important that such community programs are supported.

### Compliance

A high level of compliance with laws and regulations is essential to ensure sustainable use of fish stocks, protection of habitats, maintenance of environmental quality and protection of cultural resources.

Illegal harvesting of marine resources is a significant problem, and in some fisheries (eg abalone) is a major threat to sustainable management of the stock. Sound, implementable and adequately funded compliance programs are essential to address fish theft and non-compliance with regulations for protecting and managing marine resources and marine areas.



Enforcement is difficult in isolated or remote areas. It is hard to identify and retrieve evidence at sea, or detect offences underwater. People who use marine and coastal areas can assist official surveillance and enforcement. A variety of education and enforcement approaches tailored to particular situations are needed.

The success of any compliance strategy will at least partly depend on whether affected users have a clear understanding of the areas to which regulations apply, with boundaries clearly identifiable. Approaches currently used include use of markers on the land, buoys and markers in the sea, and the distribution of maps and charts. Strong visual landscape features, north-south or east-west boundaries, depths, longitude and latitude references and distances from shore all assist users. Electronic navigation aids such as global positioning systems (GPS) are increasingly being used and enable boat-based commercial and recreational fishers to accurately determine their position.

## Legislation

The numerous acts, regulations and other statutory instruments applying to different aspects of management of coastal and marine areas have been documented many times (eg RAC 1993). Effective coordination of responsibilities and programs is critical. Key legislation includes the *Coastal Management Act* 1995 which establishes a coastal planning and management system, which covers Victoria's coastal and marine environment to its territorial limit at three nautical miles offshore.

*The Fisheries Act* 1995 provides for the ecologically sustainable management of Victoria's fisheries, and the reservation of fisheries reserves for specific purposes such as aquaculture and protection of fish habitat.

*The Catchment and Land Protection Act* 1994 provides for the preparation of regional catchment strategies and the coordination and monitoring of their implementation.

*The Environment Protection Act* 1970 provides for the declaration of State Environment Protection Policies for specified segments of the environment such as surface waters.

At present marine, coastal and estuarine environments can be reserved in a number of ways,

including the *National Parks Act* 1975, the *Crown Land (Reserves) Act* 1978 and the *Fisheries Act* 1995. In order to address deficiencies, overlaps and ambiguities in the present legislation when used to regulate activities, new legislation or amendments to existing legislation will be required for marine protected areas.

## Research, inventory and monitoring

The responsible use and management of marine resources depends upon the collection of reliable and relevant data, and its prompt and effective assimilation into the decision-making process.

At present, there is a shortage of environmental data, particularly biological data, on southern Australian marine waters, and the collection of data to overcome these deficiencies is a priority. However, marine scientists consider that the Victorian marine environment is well known by world standards. There has been substantial progress made in the last decade to improve both the coverage and resolution of marine environmental data for Victorian waters. However, it is also critical that both new and current data collections are carefully targeted, and integrated into a broader research and monitoring program to maximise its utility. A good example of such an approach is the recent study which consolidated and synthesised data from previous studies spanning 17 years into a comprehensive description of the biology and ecological processes at Bunurong Marine Park in Gippsland (Edmunds 2000). The report described and compared the habitats, flora and fauna, and integrated the data (where possible) to assess temporal and spatial changes.

## Recommendations

**R29** Agencies responsible for protection and management of Victoria's marine, coastal and estuarine area be allocated the necessary resources for the task, including sufficient resources to ensure effective marine compliance.

**R30** NRE, with local government, catchment management authorities, regional coastal boards and the community, develop an approach to improve coordination between coastal and marine-oriented community programs and catchment-oriented programs.



**R31** Compliance strategies should contain provisions to encourage community involvement.

**R32** Marine national parks and marine sanctuaries be permanently reserved through appropriate amended or new protected area legislation.

**R33** Changes to management regimes and regulations should be well publicised, apply to clearly defined areas, and be accompanied by an appropriate level of education and enforcement.

**R34** Priority be given to establishing monitoring programs:

- for marine national parks to determine the extent to which these areas are meeting their objectives, and
- for areas of resource use to help assess whether the use is sustainable.

**R35** Where data collection, research and monitoring is associated with resource use, the user-pays principle be applied as appropriate.

**R36** That the Government, in consultation with research, community and industry organisations, establish a framework for the acquisition of data relating to Victoria's marine, estuarine and coastal resources and ensure co-ordination of a program of integrated data collection.

## 2.8 Coastal reserves and coastal land use

In Victoria most of our coastline, the beach and foreshore remains in public ownership and available for public use. This is a priceless asset not enjoyed in many other parts of the world.

The Victorian Coastal Strategy, a strategic plan for the whole of the Victorian coast, was prepared by the Victorian Coastal Council (VCC) and released in November 1997.

During the preparation of the Strategy, the VCC liaised closely with the LCC and the ECC, to ensure compatibility between the two planning processes. Although there is some overlap, generally the VCC placed greater emphasis on the land, while the LCC/ECC investigations have been more strongly focused on the marine and estuarine environments.

Another significant difference is that the LCC/ECC investigations are confined to public land whereas the Victorian Coastal Strategy covers both public and private land.

The Victorian Coastal Strategy identified 23 activity nodes along Victoria's coastline which are areas with identified strategic priorities for improved facilities or structures or, where there is a need for detailed planning to control or direct future development in a particular area. These activity nodes could be subject to future review and amendment through coastal planning processes. The Strategy also identified, at a broad scale, General Recreation and General Protection Zones, for coastal public land outside parks and conservation reserves, based on earlier work by the LCC.

### Coastal Recreation and Coastal Protection Zones

Consistent with the Victorian Coastal Strategy, the Coastal Recreation Zones are areas capable of sustaining recreational opportunities for large numbers of people. These zones should be managed for appropriate recreational use whilst minimising impacts on remnant values and the coastal environment. The Coastal Protection Zones are areas in relatively natural condition or with significant natural or cultural values, including sites or fragile environments which are sensitive to modification. These zones should be managed to provide for low impact recreation, consistent with protection of the natural values of the area.

The ECC has adopted the terms Coastal Recreation Zone and Coastal Protection Zone, and has identified these zones at a finer scale in conjunction with the VCC.

During the public consultation period following release of the ECC's Draft Report it was apparent that there was widespread community concern about the implications of the coastal zoning outlined above.



The VCC and the ECC have avoided detailed prescriptive statements on activities that would be permissible or not permissible in these zones to provide for flexibility in on-ground management, and acknowledging the wide variety of local circumstances that are experienced in these coastal locations. However, the broad nature of the guidelines has given rise to uncertainty and anxiety in some local communities, and the following points are made to clarify the purpose of the coastal zoning.

- The coastal zoning applies to coastal public land outside parks and conservation reserves, and will not prevent fishing in adjacent waters.
- Recreation is an appropriate use in both Coastal Recreation and Coastal Protection Zones – it is the capacity for, and scale of associated development that will vary. For example, development of an intensive use such as a camping ground and associated facilities would not normally be appropriate in a Coastal Protection Zone. Development of any new facilities in a area zoned for Coastal Protection would need to be consistent with protection of the natural values of the area. In most cases this would already occur.
- Detailed local planning for individual coastal reserves, taking into account the broad directions of the coastal zoning, will be undertaken by local managers and will involve public consultation.

Coastal zoning is mapped at a scale of 1:350 000 in Map A accompanying this report. More detailed maps at approximately 1:100 000 are available upon request from the ECC, or for inspection at local government offices, NRE offices and regional coastal boards.



Coastal Protection Zones are areas in a relatively natural condition or have significant cultural values.  
Photo: Hania Bibrowska

### Recommendations

- R37** That the Coastal Recreation and Coastal Protection Zones shown on Map A be incorporated into the Victorian Coastal Strategy.
- R38** Detailed planning for individual coastal reserves, including determination of uses to be permitted and guidelines for development of facilities, be undertaken through existing mechanisms as appropriate, including coastal action plans and reserve management plans. Such planning at the local level would involve public consultation.



