



WESTERN REGIONAL COASTAL PLAN 2015-2020 DRAFT



Submissions on the draft plan are invited. Please make your submission by 5pm on Friday 20 March 2015 by post or email to:

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Electronic copies of the draft plan are available online at www.wcb.vic.gov.au. If you would like printed copies or have any questions about the draft plan, please contact us using the details above.

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The Western Coastal Board proudly acknowledges Victorian Aboriginal communities and their rich culture; and pays its respects to the Traditional Owners of the Western coastal region. The Board also recognises the intrinsic connection of traditional owners to Country and acknowledges their contribution in the management of land, water and resources management.

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Front Cover Bottom left to right: Ocean Grove Beach, Hobie Cats at Point Roadknight, Anglesea, photo: Great Ocean Road Coast Committee, Great Ocean Walk, photo: Kyeong Woo Kim, Tourism Victoria. Sea Sweep schooling in the Twelve Apostles Marine National Park, photo: Parks Victoria, *The Beach, Warrambbool, Victoria*, c1920-1954. Rose Stereograph Co.

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MINISTER'S FOREWORD

Victorians love the coast. It is a vital part of our lives. As Minister and a Local Member of a coastal area, I'm keen to make sure we continue to protect and maintain all the things we as a community value about our coast.

Our coastal environment is complex and constantly changing, requiring us to be responsive and adaptable.

Working together to tackle challenges on the coast, such as climate change, will ensure that future generations will be able to enjoy the coast, as we do today.

Victoria's coastal planning and management framework is a great foundation for effective coastal care, and the Victorian Coastal Strategy provides overarching guidance and direction to coastal decision-makers.

At a regional level, the Western Coastal Board has used this framework to develop a draft Regional Coastal Plan.

The Regional Plan will identify opportunities for more localised decision-making and bring together the many agencies, stakeholders and community groups that play a role in managing our coast.

I'm proud that our communities are deeply passionate and engaged about their coast and its future, and I encourage all those who have a stake in the coast to have their say on the draft plan.

Local expertise, ideas and knowledge are critical to successful coastal management, and I look forward to working with Victorians to fulfil our collective vision for a healthy coast.

**The Hon Lisa Neville MP
Minister for Environment, Climate
Change and Water**

CHAIR'S FOREWORD

The Western coastal region is home to a growing number of both residents and visitors who share a common appreciation of the many attractions the coast offers.

Our stunning coastline hosts national, state and marine parks, cultural outings such as the Port Fairy Folk Festival, sports events like the Bells Beach international surfing event, vibrant communities, and character filled seaside villages.

Those fortunate enough to live in the Western coastal region understand that being able to continue to enjoy what the coast has to offer depends on us finding smart ways to enjoy it in ways that maintain the natural features that make such an important contribution to our enjoyment.

Looking after the coast and continuing the proud history of coastal management is important for a sense of wellbeing. Our regional communities also recognise how much the local economy benefits from the large influx of both visitors and new residents that we receive each year.

As community members, we're lucky – we get to enjoy the coast all year 'round, and I think it's fair to say, we know our coastline better than anyone.

With that privilege comes a responsibility.

I'm proud to acknowledge all the good work done by communities throughout the Western coastal region to help maintain and protect our coastline. This Western Regional Coastal Plan provides another opportunity to be involved.

The Western Coastal Board has identified practical regional-scale actions in the Plan to protect biodiversity, ensure sustainable development and identify areas where coastal infrastructure to facilitate use is best sited.

I encourage you to assess the proposals in this Plan and let us know what you think so we can effectively coordinate and inform coastal planning and management in the region.

On behalf of the Board I would like to recognise everyone's efforts in making sure we continue to appreciate what we have, and invite you to contribute to this Western Regional Coastal Plan.

**Councillor Jill Parker
Chair, Western Coastal Board**



1 INTRODUCTION

1.1 About the Western Coastal Board

The Western Coastal Board (the Board) is an advisory body of eight community members with a strong interest and expertise in coastal matters. Appointed by the Minister for the Environment and Climate Change they provide strategic guidance for management of Victoria's western coast. The Board has specific functions under the *Coastal Management Act 1995*. These are to:

- Develop Coastal Action Plans (now an overarching Regional Coastal Plan);
- Provide advice to the Minister, the Victorian Coastal Council and government on coastal development and other matters;
- Prepare and publish guidelines for coastal planning and management;
- Facilitate public awareness, consultation and involvement in the development and implementation of the Victorian Coastal Strategy, Coastal Action Plans and coastal guidelines; and



A diver enjoys the marine environment at The Arches Marine Sanctuary
Photo: Parks Victoria

- Liaise with, and encourage the cooperation of, government departments, councils, public authorities, industry, community groups and those involved in the planning and management of the region in developing and implementing strategic solutions to matters affecting the conservation and use of the region's coasts.

The Board is established under the *Coastal Management Act 1995*; it is supported by the Department of Environment, Land, Water and Planning (DELWP).



Hooded Plover
Photo: Annette Hatten

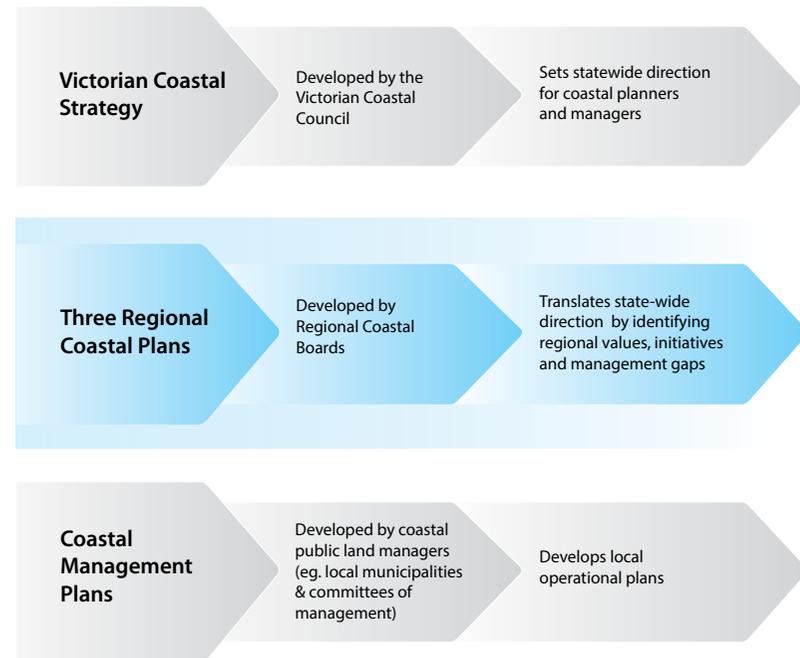


Figure 1: The *Coastal Management Act 1995* hierarchy - role of the Regional Coastal Plans

The Victorian Coastal Strategy 2014 identifies that the term 'coast' means:

- the marine environment - nearshore marine environment, the seabed, and waters out to the State limit of three nautical miles
- foreshores - or coastal Crown land up to 200 m from the high water mark
- coastal hinterland - land directly influenced by the sea or directly influencing the coastline, and with critical impacts on the foreshore and nearshore environment
- catchments - rivers and drainage systems that affect the coastal zone, including estuaries
- atmosphere - near, around and over the coast as defined above.

1.3 Why have a Regional Coastal Plan?

Regional Coastal Plans bring diverse interests together – across different land tenures and various jurisdictions – to develop integrated approaches to coastal management. The Board and partners have developed a range of local and regional coastal action plans which have helped implement ICZM and plan for change across public and private land, estuaries and boating facilities (see Appendix 1). Local and regional coastal action plans were reviewed in 2012 and the priority recommendations incorporated into this new plan (see Appendix 2).

The Minister for Environment and Climate Change has asked the Board to prepare a regional-scale plan to guide implementation of the Victorian Coastal Strategy in the Western coastal region. This Western Regional Coastal Plan is a Coastal Action Plan under section 22 of the *Coastal Management Act 1995*.

The Western Coastal Board has focussed this overarching plan on identifying and prioritising those management actions that cannot be achieved more effectively at either the local or state level. It helps to:

- Identify regional priorities for action;
- Minimise duplication;
- Coordinate efforts across management boundaries; and
- Reduce the potential for cumulative small decisions having unintended impacts.



1.4 The vision for the Western Regional Coastal Plan

The Board acts to achieve the vision expressed in the Victorian Coastal Strategy 2014: a healthy coast appreciated by all, now and in the future.

For the Western coastal region this means:

- Protecting regional biodiversity;
- Ensuring sustainable developments; and
- Identifying areas where residential and tourism infrastructure are best sited.

1.5 The structure of this plan

This plan consists of three parts.

1. Understanding and valuing the coast: this section briefly explains the different ways in which we value and understand the coast;
2. Balanced decision making: the second part shows how the Board intends to work with its partner agencies to develop plans and actions that will enhance the ability for all to continue to use and enjoy the coast; and
3. Implementation: the final part explains how the plan will be implemented, including a monitoring and reporting process.

Hierarchy of Principles

The Victorian Coastal Strategy 2014 supports the hierarchy of principles introduced in previous Strategies and also recognises that the foundation of coastal planning and management is a healthy coastal and marine environment. These principles give effect to the directions in the *Coastal Management Act 1995* and are included in the State Planning Policy Framework and in planning schemes across Victoria.

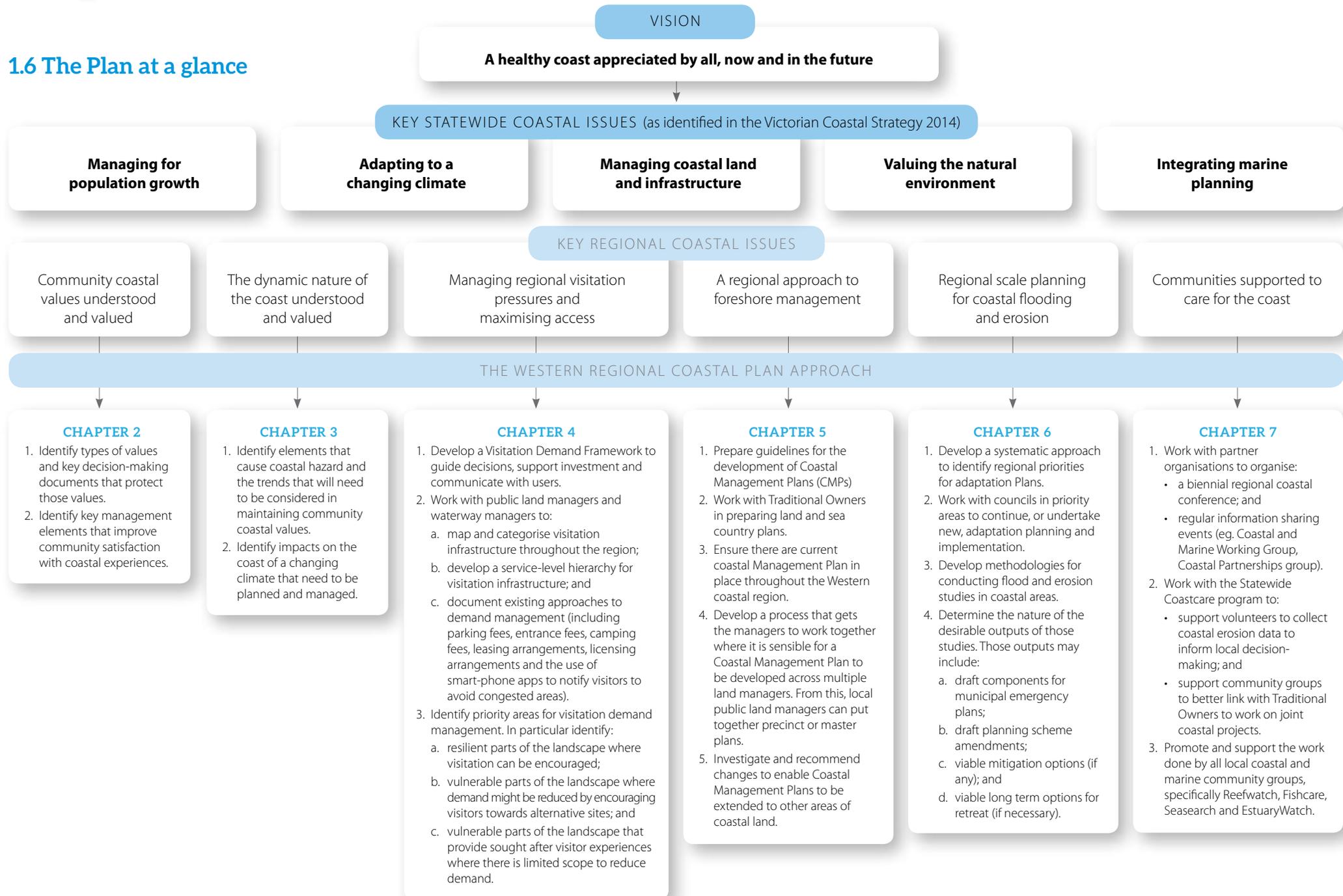
The actions in this Western Regional Coastal Plan support these principles and work to make sure that decision making on the coast is guided by and consistent with the hierarchy of principles, which are:

- Provide for the protection of significant environmental and cultural values
- Undertake integrated planning and provide clear direction for the future
- Ensure the sustainable use of natural coastal resources

Only when the above principles have been considered and addressed:

- Ensure development on the coast is located within existing modified and resilient environments where the demand for development is evident and the impact can be managed.

1.6 The Plan at a glance



2 COASTAL VALUES

The Western coastal region provides important environmental, social, cultural and economic values for Victorians and visitors to the region. Understanding these values is essential for effective decision-making.

2.1 Environmental values

The Western coastal region bears the full brunt of the Southern Ocean's storms; it experiences some of the highest wave energy in the world. As a result, wave attack has created a dramatic nationally and internationally significant coastal landscape that is constantly changing. Long-shore drift transports large quantities of sand, predominantly from west to east. The Western coastal region's sandy beaches and their dune systems respond seasonally as seas alternatively erode and then deposit sands.

In general, regional planners and managers focus their efforts on ensuring that local high value habitats can be protected – especially those that are most affected by human activity.



2.1.1 Marine Ecosystems

Australia's southern coast is by far the longest south-facing expanse of temperate shoreline in the southern hemisphere, and many of Victoria's marine species, such as the seaweeds that make up its spectacular kelp beds, occur nowhere else in the world. A number of marine ecosystems are managed through the designation of Marine National Parks and Sanctuaries.

There are two marine bioregions in the Western coastal region – the Otway bioregion extending from Cape Jaffa in South Australia through to Apollo Bay, and the Central bioregion from Cape Otway to west of Wilson's Promontory.¹ Both contain many different types of marine habitats, including pelagic habitats (the water column within the ocean), deep rocky reefs, sub-tidal rocky reefs, intertidal shorelines, including rock platforms and sandy beaches.

Spectacular animals such as the Western Blue Devil fish, Cuttlefish and Weedy Seadragon are found in the Western Coastal region's marine parks and sanctuaries
Photo: Parks Victoria

The 'Bonney Upwelling' is one of the key oceanographic processes affecting the Great Australian Bight, and makes Victoria's far west coast a highly productive environment. From November to May, south-east winds cause the offshore movement of surface waters and result in cold nutrient-rich water 'welling up' from the deep ocean through submarine canyons onto the continental shelf. The nutrients trigger growth in algae (from minute plankton to large seaweeds). These plants form the building blocks of food chains that have seals, sea birds, sharks, whales and humans at the top of the chain.

2.1.2 Foreshore Ecosystems

The Western coastal region's foreshore ecosystems are particularly important; they link marine, estuarine, freshwater and terrestrial areas. Foreshore habitats include the beach, dune system, headland scrub, grasslands and saltmarsh areas.²

Unstable low-nutrient soils, made largely of sands that hold little water, interact with wind and salt to provide the critical influences on coastal vegetation. Plant communities growing in these areas have to cope with this challenging environment. Examples include the native spinifex that binds shifting sand dunes, as well as the moonah and sheoak trees whose narrow leaves enable them to cope with high levels of salt and reduce their water needs.

Foreshore ecosystems connect people's movements between, and provide access to, land and water. People are able to enjoy swimming, surfing, fishing, diving and boating by making use of foreshore access. People also enjoy relaxing and walking on the foreshore.

2.1.3 Hinterland Ecosystems

The region's hinterland includes a range of ecologically significant habitats such as coastal forests, coastal heath and volcanic plains. A number of nationally significant estuaries and wetlands extend across both foreshore and hinterland. These habitats are represented in National Parks, State Parks and Reserves such as the Great Otway National Park and Lower Glenelg National Park.

Rivers, wetlands and estuaries of State significance occur throughout the region. They include the Glenelg, Moyne and Gellibrand estuaries.³ The border region between South Australia and Victoria has the highest density of wetlands in southern Australia. Rivers, wetlands and estuaries are the engine rooms for the carbon and nutrient cycles that support coastal plants and animals and support a wide range of social and economic values such as recreation and tourism.

Our towns and farms have now replaced much of the original habitat in some systems, and further changes in land use have the potential to affect the remnant habitats. There is much that we can do to protect or restore these habitats, while also accommodating sustainable changes in land use. We can make use of appropriate planning tools, protect local remnant vegetation, manage weeds and plant shelterbelts, design stormwater treatment systems, fence off riverbanks and protect floodplains, to name a few.

2.2 Social and Cultural Values

The Western coastal region has large towns such as Warrnambool, Torquay and Portland, that have extensive social networks associated with employment, training institutions, sporting and artistic life. Smaller coastal settlements like Apollo Bay and Port Fairy have strong links to neighbourhood, family and place. Many places along the coastline represent strong, long-standing connections for the families and friends that share these places.

Many features of the Western coastal region are of national significance. For example, the Great Ocean Road is one of ten regions in Australia considered a nationally significant landscape, and the Budj Bim landscape of the volcanic plains was one of the first places to be listed on Australia's National Heritage List. Similarly, deep-water ports are rare in south east Australia, so the Port of Portland is an asset of national significance.⁴ It is an export gateway for timber, livestock, mineral sands, grains and woodchips. Its surrounding heritage and amenity values have seen it attract cruise ships.

This Plan describes the types of social values most explicitly associated with the coast. Therefore it concentrates on cultural heritage values and amenity values. This is how it will help coastal planners and managers work with local and regional communities to articulate the priority values they are protecting.



The Great Ocean Road is a landscape of national significance and is one of Australia's most popular tourist destinations
Photo: Kyeong Woo Kim, Tourism Victoria

Tower Hill, near Port Fairy, is an inactive volcano and is part of an important landscape with high cultural and environmental values as seen at the Tower Hill Visitor Centre
Photo: Worn Gundidj Aboriginal Cooperative

2.2.1 Cultural heritage values

Aboriginal people have strong connections with the Western coastal region: their stories of place, and the tens of thousands of years of physical evidence of their presence, remind us of these links. Examples include complex aquaculture systems such as those found at Budj Bim, shell middens and scar trees.⁵ Importantly these connections that Aboriginal people have with the landscapes within the Western coastal region continue to this day.

The Western coastal region is endowed with significant cultural heritage. Some of these values are embodied in tangible objects, such as buildings, landscapes, shipwrecks, places of significance and artefacts. Some cultural values, though, are intangible; they include the connections to traditions many people feel, including Aboriginal, maritime and agricultural history. Other forms of cultural value arise from holidaying and recreational traditions.

Cultural heritage values in Warrnambool, Port Fairy and Portland, reach back to Victoria's pre-settlement period. The whaling and seal industries were active in the early 1800s, and a whaling station was established in Portland Bay before Victoria's first permanent European settlement at Portland in the 1830s. There are still over 200 buildings from this era in Portland.



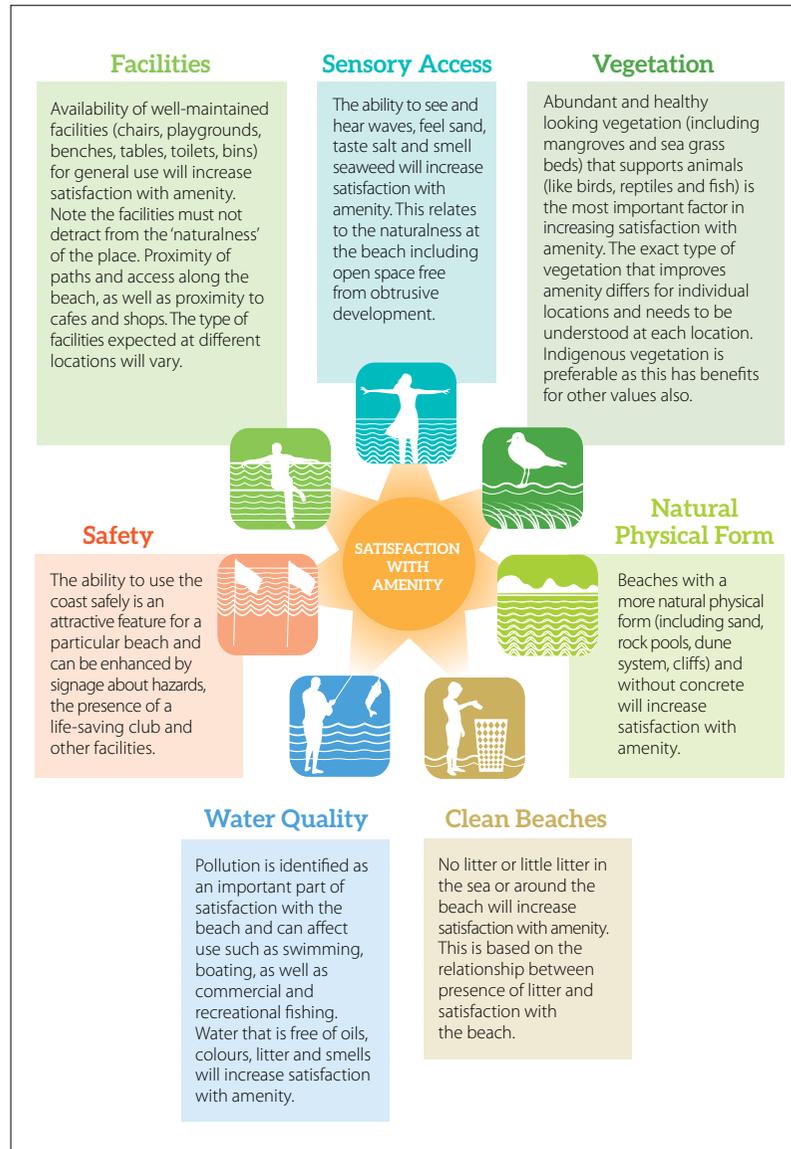
Figure 3 Key regional social, economic and environmental values of the Western coastal region Note: Not to scale

2.2.2 Amenity values

Many factors affect people's enjoyment of the coast and contribute to a sense of wellbeing by providing amenity values. Figure 4 describes how different attributes of the coast can contribute to the way people appreciate and value the coast. Some aspects of amenity are tangible, such as paths and natural vegetation. Others are intangible, such as open space, views, safety on the water, links to places or people, or the knowledge that wildlife is present.



Camping is a favourite pastime in the Western coastal region



The sense of wellbeing derived from the coast is intrinsically linked to our ability to maintain or enhance the quality and the extent of natural views, native vegetation and natural landscapes.⁶ The built environment also contributes to our sense of wellbeing by providing people with physical and visual access to the natural environment and its associated intangible values.

For example, the tracks, paths and boardwalks that allow people to move to, from or along the beach help improve amenity, while at the same time providing access to the sights and sounds of the ocean. Similarly, picnic facilities enable people to enjoy the time they spend beside the coast.

Amenity values are diminished by the presence of inappropriate or intrusive development, degraded environments, odour, litter and noise.



Gibson Steps near the Twelve Apostles
Photo: Corangamite Shire Council

Figure 4 Managing visitor satisfaction with their coastal experience - key amenity values (derived from Melbourne Water)

2.3 Economic values

The commercial uses of the coast includes agriculture and commercial fishing, manufacturing, tourism and recreation, construction, shipping and energy production, each of which have direct and flow-on benefits to local and regional economies.

Dairy, sheep and beef are important for agriculture in the region. Various aquaculture industries as well as commercial and recreational fishing activities take place along the coast, including abalone, fin fish and rock lobster. Value-adding to primary products by manufacturing injects a further \$4 billion into the region's economy every year.⁷

The tourism industry is a significant contributor to employment on the coast. For example, the Great Ocean Road is a designated nationally significant tourist destination and captures around seven million visitors, contributes over 7000 jobs and has a direct economic output of \$1.1 billion per annum.⁸ It attracts more than half of all international visits to regional areas and more domestic tourism expenditure than any other region in Victoria.⁹

Construction is a major employer in some coastal locations, accounting for 13 per cent on the Surf Coast and 8.8 per cent in Warrnambool in 2006.¹⁰ The retail, education and healthcare/social assistance sectors are also significant contributors to the regional economy and important employers.



Caravan and camping parks, such as Warrnambool's Surfside Holiday Park, deliver significant commercial and non-commercial economic benefits to the region
Photo: Warrnambool City Council



Wind energy is an emerging industry in the Western coastal region



Rock Lobster fishing pots, Port Fairy
Photo: Guy Werner

The Port of Portland is one of Victoria's four main commercial trading ports, handling the bulk of commercial trade in the region. Port Fairy, Warrnambool and Apollo Bay also support substantial ports that are tourism destinations.



The coast continues to be an attractive place to live for many

Alternative energy production is being established in the region, with geothermal, natural gas, wave and wind energy projects either in operation or with planning approvals.¹¹ The emergence of new energy industries in the Western coastal region, such as geothermal power and carbon capture and storage may offer opportunities for economic development, while simultaneously presenting new threats and pressures to natural and social values.

Non-commercial economic values of the coast include storm and flood protection, erosion buffers and nutrient cycling. These ecosystem services provide significant benefit to the community. For example, sand dunes provide a sand store for beach replenishment after storms, sea grass beds act as nurseries for important fish species (such as bream and whiting) and coastal saltmarshes fix nutrients and carbon.

Case study – Economic benefits of the region's caravan and camping parks

The Value and Equity for Climate Adaptation: Caravan and Camping Park Case Study project was initiated to gain a better understanding of non-commercial economic and social values of the coast to assist with climate adaptation decisions.

It was undertaken by the Board in 2012, and the first stage surveyed both campers and residents in five coastal towns. It generated a range of new economic and social information, such as how people value the beach. It showed that the consumer surplus across the five caravan parks was \$49 per person per night, which extrapolates to a \$90m benefit provided to the community annually from these five parks alone.

The second stage of the project was the development of a framework which shows the reader how to incorporate this kind of information into existing decision making processes for adaptation. It steps decision makers through the generation of new information, followed by its inclusion in options assessments and finally the application of the information to the three areas of business case, *Coastal Management Act 1995* consent and municipal planning approval.

2.4 Protecting coastal values

Under the *Coastal Management Act 1995*, regional and local decision-makers must have regard for the coastal values described above when working with their communities on coastal planning and management.

The Victorian Coastal Strategy 2014 identifies the logic by which the Board develops policies and actions to manage the factors that contribute to those values. It helps us to be explicit and consistent about how we refer to the various values and how we prioritise actions and investment. Regionally, that logic helps us to identify where these values are most concentrated, and, in particular, assists us in determining where they may be at risk due to coastal processes or human activities.

Figure 5 provides a regional snapshot of some of the values within the Western coastal region and how these guide decisions by coastal planners and managers.

It also identifies key plans and work done by those agencies with significant responsibilities on the coast. In particular, the Board notes the work by catchment management authorities in estuaries and wetlands in response to statewide directives in the Victorian Coastal Strategy 2014 and the Victorian Waterway Management Strategy 2013. Led by the catchment management authorities, it is expected that the Board will be involved in the development of regional waterway strategies and natural resource management planning for climate

change; these will identify significant natural values and areas of ecological significance to help prioritise investment.

Similarly, the Board notes work by local councils in planning and managing community coastal values within their planning schemes and urban design. They work with land holders, developers and public land managers to make sure impacts of increasing urbanisation and use of the coast are managed to meet community expectations.



GUIDE DECISIONS BY COASTAL PLANNERS AND MANAGERS

CATCHMENT MANAGEMENT AUTHORITIES

- Regional Catchment Strategy
- Sub-strategies (eg. Marine and Coastal Biodiversity Strategy, Waterway Strategy and Estuary Plans)
- Estuary Entrance Management Support System
- Investigations (eg. Implications of Future Climate for Victoria's Marine Environment)

LOCAL GOVERNMENT

- Planning scheme components (eg. Significant Landscape Overlays, Municipal Strategic Statements, Coastal Development Policy)
- Regional Growth Plans
- Coastal Management Plans (Master and Precinct plans)
- Climate change strategies (eg. Local Coastal Hazard Assessments, Adaptation plans)

COASTAL COMMITTEES OF MANAGEMENT

- Coastal Management Plans (Master and Precinct plans)
- Leases and licences
- Coastal Climate Change Investigations (eg. Coastal climate change vulnerability and adaptation project)
- Cultural Heritage Management Plans

TRADITIONAL OWNERS

- Sea Country Plans
- Joint Management Plans
- Sustainable Development Plans (eg. Budj Bim Sustainable Development Project Masterplan)

PARKS VICTORIA

- Park Management Plans (including Marine Parks)
- Joint Management Plans
- Ramsar Site Plans

COMMERCIAL AND LOCAL PORTS AUTHORITIES

- Safety and Environment Management Plans
- Land Use and Transport Strategy

WESTERN COASTAL BOARD

- Regional Coastal Plans (and previous Regional Coastal Action Plans on estuaries, boating, etc)
- Studies (eg. Caravan and Campground)

Figure 5 Community coastal values guide decisions in the Western coastal region.

3 THE DYNAMICS OF THE COAST

Coastal planning and management must allow for the dynamic nature of the coast. That dynamism is manifested through:

- Natural coastal processes;
- A changing climate;
- Demographic trends; and
- Visitation trends.

3.1 Natural coastal processes

The coast is the interface between land and sea, and is not static. It changes with the influence of tides, wind, waves and weather systems. Interactions between coastal processes and different landforms (sandy beaches, rocky headlands, low-lying mud flats and estuaries) create complex and dynamic systems.

People’s interactions with coastal processes can create coastal hazards.¹² If a coastal process presents a risk of damage to property, loss of life or environmental degradation, it is considered a coastal hazard.

The Victorian Coastal Strategy 2014 states that coastal planners and managers should respect natural coastal processes where ever possible.

In order to minimise or avoid coastal hazards, the structures placed along the coast must take account of its dynamic nature. Public buildings and structures on the coast include boat ramps, jetties, picnic facilities, toilet facilities, boardwalks and seawalls.

Due to the need to ensure safety and amenity, coastal structures generally have high maintenance and replacement costs.



Our natural dynamic coastline - the beach at Separation Creek (near Lorne) in 2011 (top) and in 2013 (above)

For this reason, buildings and structures with high social or economic value should not be placed where coastal hazards may affect them. If because of the purpose of the structure there is no alternative (jetties and boat ramps for example), then the higher costs of maintenance and replacement, and the effects on coastal processes, must be planned for and minimised. For example, floating jetties provide an effective

approach to dealing with the seasonal opening and closing of some estuaries.

Hard structures such as groynes and seawalls can be used to address erosion. However, they also affect coastal processes; they alter sand movement and the effects of wave energy. For example, because they interrupt the supply of sand to beaches, through the natural long-shore drift of sand, they can cause beaches and foreshore to be lost in one area and built up in another. Such changes may not be immediately obvious; therefore the potential for this to happen needs to be carefully considered before such structures are built.

The dynamic nature of coastal processes means all proposals for protective works on the coast (on private or public land) must be considered and designed as part of a larger ‘whole of coastal cell system’ rather than as an individual site. That is, they must be designed and managed with an understanding of coastal processes and the wider impacts on coastal values beyond the location of the works.

3.2 A changing climate

A changing climate has the potential to increase the extent and severity of coastal hazards.¹³ By bringing about increased rates of erosion and more extensive flooding, rising sea levels pose greater risks to properties and to coastal structures and buildings. It may also result in areas that are not at risk now becoming so in the future.

To counter those risks, we need to balance current use and development

opportunities with potential future costs and the long-term health of the coast. We also need to address the legacy of earlier land use decisions; where property and infrastructure are now at risk from erosion or flooding, we need to adapt to changing circumstances. The options may include living with the risk for the economic life of existing assets, removing or relocating the assets, or mitigating the risk.

The Victorian Climate Change Adaptation Plan 2013 sets out how the Victorian Government is managing these risks (amongst others) and acknowledges the contribution by all tiers of government, business and communities in this work.

A number of studies by coastal managers and local governments have assessed the likely future effects of coastal hazards. These include:

- the Port Fairy Local Coastal Hazard Assessment 2014;
- Coastal Climate Change Vulnerability and Adaptation study (Great Ocean Road Coast Committee 2012);
- Climate Resilient Communities of the Barwon South West 2014; and
- Value and Equity Framework for Climate Adaptation: Caravan and Camping Parks Case Study (Western Coastal Board 2013).

The knowledge gained from these studies assists local communities to arrive at decisions that make them more climate resilient. A good example is the Moyne Shire Coastal Adaptation Plan for Port Fairy.

Case study – Port Fairy Working Group

Coastal erosion around Port Fairy is threatening important community activities, environmental values, private property and infrastructure. The historical response was to install a rock wall along the beach from the river mouth to the last house on Griffiths St at the north east edge of town.

Further north of the rock wall, the beach is eroding and exposing old tip sites and resulting in debris on the beach. Approximately two tonnes of waste has been collected since 2011.

The Port Fairy Inter-agency Working Group came together to share information and develop shared solutions to this and other challenges confronting the coastline.

The Group provided input to the Local Coastal Hazard Assessment for Port Fairy, and it supported the Port Fairy Community Challenge Group in developing a community beach monitoring program. It is now developing an engagement plan to ensure people understand the potential impacts of climate change along Port Fairy’s coastline and what options may be available to meet this challenge.

3.3 Demographic trends

Many people choose to live on the coast. Changes in population creates challenges in meeting future infrastructure and employment needs. Balancing these changes with the protection of coastal values means that the Western region's coastal settlements need to be planned according to geographical landscapes and regional strengths. They also need to be planned around the relationships with hinterland townships and the larger regional towns that form centres for employment and services.

Table 1 shows the resident population of the region's municipalities from 2011 and projections to 2021.¹⁴ This is anticipated to grow to 143,434 by 2021, with the highest growth being in the municipalities of Surf Coast, Warrnambool and Moynes.

Changes to the population are evident across the Western coastal region, and it is important to note that these changes are not uniform and that not all settlements are growing. For example, Torquay-Jan Juc had a very high average annual growth rate of 6.4 per cent between 2006-11, while Aireys Inlet

and Fairhaven experienced a negative average growth rate of -2.4 per cent.¹⁵ Portland experienced no change for the period, while Apollo Bay also declined by 2.6 per cent during the same time.

The approach to western coastal settlements is set out in the G21 Regional Growth Plan Implementation Plan and the Great South Coast Regional Growth Plan released in 2014. These plans have an important role in defining settlement boundaries and the inclusion of green breaks between settlements. They also establish the relationships between settlements. The aim of this Regional Coastal Plan is to assist in implementation and to inform future Regional Growth Plans.

Regional Growth Plans identify coastal values and address sensitive coastal areas for planning; they should also identify the growth in localised foreshore use pressures associated with population growth. For example, the development at Armstrong Creek on the southern boundary of Geelong will mean that an extra 55-60,000 people will have the opportunity to use the coast more regularly. This will likely

drive a significant increase in visitation pressures at Torquay, Anglesea and on the Bellarine Peninsula in the central coastal region.

3.4 Visitation trends

The Great Ocean Road and Twelve Apostles are among Victoria's most popular visitor and tourist destinations; they are of national and international significance.¹⁶ The Great Ocean Road Region captures more domestic and international visitors than any other tourism region in Regional Victoria (see Figure 6). Many other destinations in the Western coastal region such as Torquay, Lorne, Apollo Bay, Warrnambool, and Port Fairy draw the majority of their visitors from Melbourne, intra and interstate, as well as overseas.

Visitation and tourism are key economic drivers for Victoria and for western coastal communities. The above attractions draw significant numbers of visitors, and it is to be expected that these numbers will continue to increase. The economic opportunities associated with these trends need to be taken in ways that protects significant coastal features and landscapes from the environmental impacts that accompany high visitor numbers.

The impact of increased visitation at key coastal sites on the 'visitor experience' (that is, how an individual interacts and enjoys a site) is an emerging issue for nature-based tourism. While visitation dispersal opportunities at some sites should be considered, identifying ways for visitors to contribute financially to the renewal and maintenance of facilities as well as preservation activities that contribute

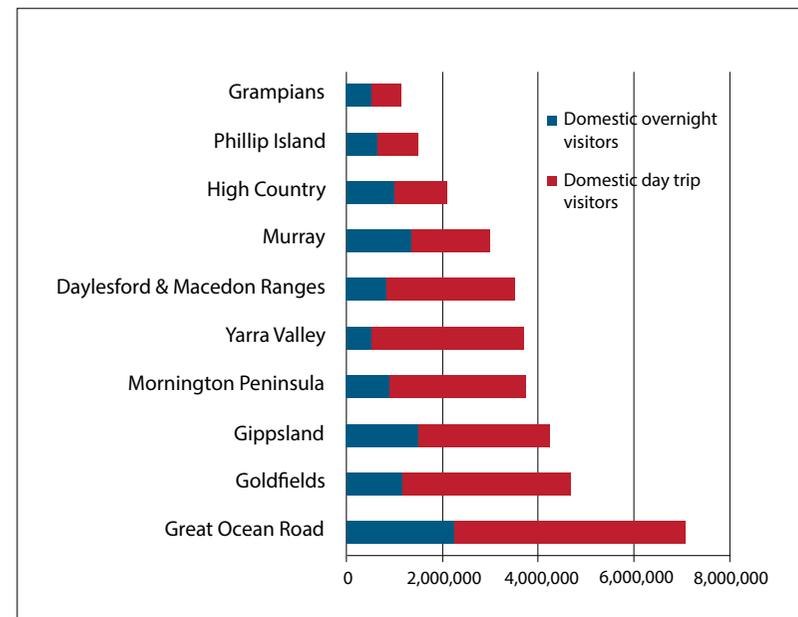


Figure 6 Visitation to regional Victoria tourism destinations 2010 (Great Ocean Road Destination Management Plan 2012) Source: National and International Visitor Survey, Tourism Research Australia



Making the most of the maritime and folk traditions, the Port Fairy Folk Festival brings tourists and locals together for a cultural celebration.

to maintaining a quality visitor experience also deserve consideration. Further studies that describe the visitor experience at coastal sites such as the Great Ocean Road should be a priority.

Regional scale strategic planning can help to identify opportunities to tailor the service levels offered by visitation facilities to expected visitation demand. The key here is to do that in ways that help encourage visitation on high value, resilient parts of the coast, while minimising pressures on the vulnerable parts.

| Local Government Area | Total Population | | |
|-----------------------------------|------------------|---------|---------|
| | 2011 | 2016 | 2021 |
| Colac Otway Shire | 20,799 | 20,798 | 21,274 |
| Corangamite Shire | 16,526 | 16,003 | 16,041 |
| Glenelg Shire | 19,848 | 19,490 | 19,686 |
| Moynes Shire | 16,167 | 16,587 | 17,094 |
| Surf Coast Shire | 26,666 | 29,834 | 33,492 |
| Warrnambool | 32,667 | 34,060 | 35,847 |
| Total for Western coastal region: | 132,673 | 136,772 | 143,434 |

Table 1 Projected population for local government areas in the Western coastal region¹⁴

4 MANAGING REGIONAL VISITATION PRESSURES AND MAXIMISING ACCESS

4.1 Background

Access to coastal land and marine environments is managed by a variety of public land and waterway managers (see Figure 2). As far as practical, they each aim for balanced access between users, being mindful of protecting natural values and the impact on amenity for other users. They manage access through their provision of facilities that include walking tracks, boat ramps, car parks, picnic areas, boardwalks, jetties and caravan parks.

Periods of congestion at popular locations are frustrating to experience, and particularly challenging to manage. These periods of congestion are extending beyond the traditional peak school holiday seasons into weekends, particularly in shoulder seasons at key destinations along the coast. There is a balance to be achieved between continually upgrading facilities at popular sites, and promoting the availability of alternative sites.¹⁷ Queuing, parking fees, site-specific fees and ballots are all legitimate ways to manage access, but they need to be evaluated.



Couple hiking on the Great Ocean Walk
Photo: Mark Watson,
Tourism Victoria

The Port Fairy Folk Festival attracts thousands of people each Labour Day long weekend
Photo: Perry Cho



Portland Harbour experiences high demand during the tuna season
Photo: Syd Deam

Careful design and placement of facilities along the coast can ease the pressure on vulnerable coastal values.¹⁸ Similarly, the differing levels of service provided at individual visitation sites can help concentrate visitation pressures in the most resilient parts of the landscape where adequate facilities exist.

Balancing access to these facilities is best considered at the regional scale. Carefully distributing facilities and service levels across the region will enhance accessibility. It will also help reduce potential conflicts between different uses and improve the safety of those, such as boating and swimming, and assist in communicating the availability of alternative facilities and in targeting investment in priority facilities. Identifying vulnerable sites for protection is also best done at a regional scale.

Amenity values at some vulnerable sites may mean that access needs to be provided in different ways. In these cases, the optimum solution may be to offer high service levels through the provision of facilities such as boardwalks, sophisticated parking arrangements (for example 'park and ride') and public transport.

This is particularly true of places along the Great Ocean Road, currently visited by 60 per cent of all international visitors to regional Victoria.

Case Study – Car park demand strategy

The areas managed by Great Ocean Road Coastal Committee (GORCC) represent some of the most highly visited and intensively used sections of Victoria's coast. Visitation demand for the GORCC managed coast is very seasonal. It continues to peak over the traditional holiday periods (from Christmas Day to Australia Day and at Easter).

Increasingly, however, coastal use also peaks on any warm, sunny day – especially on weekends and public holidays. In part this is driven by the improved accessibility from Melbourne provided by the recently completed Geelong Bypass.

Cars are the main form of transport to the coast, and demands for car parks are significant. This can result in congestion and indiscriminate parking behaviour, which in turn affects both the environmental and amenity values of the coast.

A Discussion Paper released for consultation at the start of 2014 outlined a number of options being considered, including providing drop-off bays at popular beaches, better communication to spread the demand and providing a park-and-ride system as an alternative to car parking.



The purpose-built viewing platform at Logan's Beach provides onlookers with spectacular views of Southern Right whales close to shore. Photo: Warrnambool City Council



A Southern Right whale breaches at Logan's Beach, Warrnambool. Photo: Warrnambool City Council



Surfboat rowers at Jan Juc. Photo: Great Ocean Road Coast Committee

Regional tourism strategies that promote coastal areas such as Bells Beach and the Twelve Apostles should also help to manage visitation demand pressures within levels of service provided at these locations.

Fortunately, the demand patterns for some other community assets run counter to the demand patterns for coastal visitation. School grounds, recreation parks and footy ovals are a good example; peak demands for coastal visitation coincide with school holidays. Some communities, such as Lorne where there is a scarcity of space available for extra parking, are now using school grounds and shuttle buses to offer park and ride services during peak times.

Case study – Cultural tourism to support understanding of Country

Landscape planning in sea country has been recently undertaken by the Gunditjmara Traditional Owners in conjunction with Parks Victoria. The Plan, Ngootyoong Gunditj Ngootyoong Mara means Healthy Country, Healthy People and recognises the Gunditjmara Traditional Owners' connections to the planning area.

The areas of Sea Country (Kooyang Mirring) include Discovery Bay Coastal Park, Mount Richmond National Park, Cape Nelson State Park, Discovery Bay Marine National Park. While this landscape coincides with the Gunditj Mirring Traditional Owners Aboriginal Corporation and Registered Aboriginal Party area, there are a range of other managers across the different land tenures that will be using this plan. As part of the plan, cultural tourism will be supported based on an understanding of Country and Heritage values, places and landscapes.

The Gunditjmara people have continuous links to the landscape such as the Budj Bim landscape, a place of at least 6000 years of cultural history told through the landscape and the stories of the people who still live there. Gunditjmara landscapes are defined by their cultural values and stories which form the basis of the visitor experience. Gunditjmara stories and the visitor experience connects across regional sites including Budj Bim, the Convincing Grounds (Allestree coast), Mt Napier, Tower Hill and the Tyrendarra coastline.

The Gunditjmara Traditional Owners place cultural values on natural areas, including aesthetic, social, spiritual, recreational and other values. Cultural values may be attached to the landscape as a whole or to individual components, for example plant and animal species used by Gunditjmara Traditional Owners.

4.2 The Boating Coastal Action Plan

The Western Victorian Boating Coastal Action Plan 2010 (the Boating CAP) is an example of how infrastructure can be planned at the regional scale. It shows that there are significant opportunities to manage demand, while maintaining community coastal values.

The Boating CAP provides an inventory of the region's boating facilities and their condition (see Figure 7). It then classifies each of them into one of five different categories (state, district, regional, local and informal facilities) based on the level of service they are intended to provide by 2035. A clear designation of strategic priority assists planning and investment processes. To some extent, every facility in a given category provides interchangeable and complementary services. Therefore, if one site is congested it is possible to receive similar services at an alternative site.

The Boating CAP takes a positive step towards planning for the development of boating facilities, including recreational boating infrastructure in local ports, to ensure community expectations and demands can be balanced with environmental and social values.

The plan's level of service approach can be applied more broadly in coastal management. Taking this approach at the regional scale lends itself to better management of all locations that hold the potential to provide interchangeable levels of service and complementary coastal experiences.



Figure 7 Map of boating hierarchy of facilities from the Western Boating Coastal Action Plan 2010

4.3 The Draft Shipwreck Coast Master Plan

The draft master plan study area for the Shipwreck Coast covers a 28 km segment of the Great Ocean Road (from Princetown to Boat Bay). It proposes options for better managing visitation demand. It also shows how this approach can be integrated with tourism strategies.

The proposed long term aim is to develop a series of park-and-ride hubs. These will provide visitors with opportunities to engage more deeply with the National Parks by hiking, cycling or catching shuttle buses through a whole-of-coast 'open interpretative centre' curated through a series of visitor pods rather than a single large interpretative centre. Visitor centres are intended to be around five kilometres apart. This would allow for comfortable hiking or cycling between them. The visitor pods would be dispersed in between to provide shelter and information.

There is potential for revenue to be raised through fees for car parking, tours and licensed operators. The revenue could be reinvested into visitation infrastructure, park maintenance and supporting services.



The Twelve Apostles Visitor Centre caters for over three million visitors every year
Photo: Corangamite Shire Council



Enjoying the Great South West Walk
Photo: Tourism Victoria

4.4 Activity and recreation nodes

The Victorian Coastal Strategy 2014 notes that in coastal communities, recreation and tourism developments are focused around activity and recreation nodes. These create efficient relationships between buildings, access and infrastructure and they minimise development impacts on the coast.

Activity nodes provide for community recreation facilities and tourism activities. They are within settlements and are adjacent to the activity centres identified in planning schemes. They are located on public and private land. Recreation nodes are located on coastal Crown land, outside activity nodes. They provide access and infrastructure for recreation and water-related activities.

Any development on coastal Crown land within an activity node or recreation node should satisfy the criteria for use and development on coastal Crown land in the Victorian Coastal Strategy. For example, the Great Ocean Road Coast Committee has identified a preliminary framework of activity and recreation nodes in their Coastal Management Plan, which was approved by the Minister for the Environment in 2013.

4.5 Key challenges and actions

The coast is valued for a range of uses. Coastal planners and managers aim to provide facilities to enhance access while maintaining the values that attracted users to the site in the first place.

Population pressures and increased tourism visitation will increase the importance of getting this balance right.

The Board believes that a regional approach will help to identify where visitation is best directed and those areas that will need further protection. It will guide decisions, target investment and help users in making choices about where to go on any given day.

| Chapter 4 - Visitation Actions | Lead | Partner Agents | By When |
|---|-------|---|----------|
| 1. Work with public land managers and waterway managers to: | | Local government | Dec 2016 |
| a. map and categorise visitation infrastructure throughout the region | DELWP | WCB, Local councils, CoM, Western Ports | Dec 2017 |
| b. develop a service-level hierarchy for visitation infrastructure. | WCB | DELWP, VCC | Dec 2017 |
| c. document existing approaches to demand management (including parking fees, entrance fees, camping fees, leasing arrangements, licensing arrangements and the use of smart-phone apps to notify visitors to avoid congested areas). | WCB | DELWP, PV, Local councils, CoM, | Dec 2016 |
| 2. Develop a Visitation Demand Framework to guide local decisions, support investment and communicate with users. | WCB | Local councils, DELWP, PV, user groups | Dec 2018 |
| 3. Identify priority areas for visitation demand management. In particular identify: | | | Dec 2019 |
| a. resilient parts of the landscape where visitation can be encouraged | WCB | Local councils, DELWP, CoM, Tourism boards | |
| b. vulnerable parts of the landscape where demand might be reduced by encouraging visitors towards alternative sites | WCB | Local councils, DELWP, CoM, Tourism boards, TOs | |
| c. vulnerable parts of the landscape that provide sought after visitor experiences where there is limited scope to reduce demand. | WCB | Local councils, DELWP, CoM, Tourism boards | |

WCB – Western Coastal Board, DELWP – Department of Environment, Land, Water and Planning, PV – Parks Victoria, CoM – Committees of Management, TOs – Traditional Owners, VCC – Victorian Coastal Council, CMAs – Catchment Management Authorities, SES – State Emergency Service

5 A REGIONAL APPROACH TO FORESHORE MANAGEMENT

5.1 Background

Coastal experiences involve the use and enjoyment of the hinterland, foreshore and marine environments. The foreshore provides the bridge between the hinterland and marine environments and is an important part of the coast to plan and manage.

The Victorian foreshore is 96 per cent publicly owned. The majority of Victoria's privately owned foreshore is in the Western coastal region. As illustrated in Figure 8, the Western coastal region's foreshore is managed by a variety of groups including Parks Victoria, local councils, committees of management, Traditional Owners and port authorities.

Parks Victoria is a major foreshore manager in the Western coastal region; it manages public land and waters of international, national or state-wide environmental significance. It is also one of the managers in the region designated as Waterway Manager under the *Marine Safety Act 2010*.

Where there are high levels of use, or there are some opportunities for the users of the foreshore to contribute to the cost of providing visitation infrastructure and services, a local council or a Committee of Management is generally responsible for managing the land. Along with the Department of Environment, Land, Water and Planning, these groups can also be responsible for the safety of boating activity as the designated waterway manager.

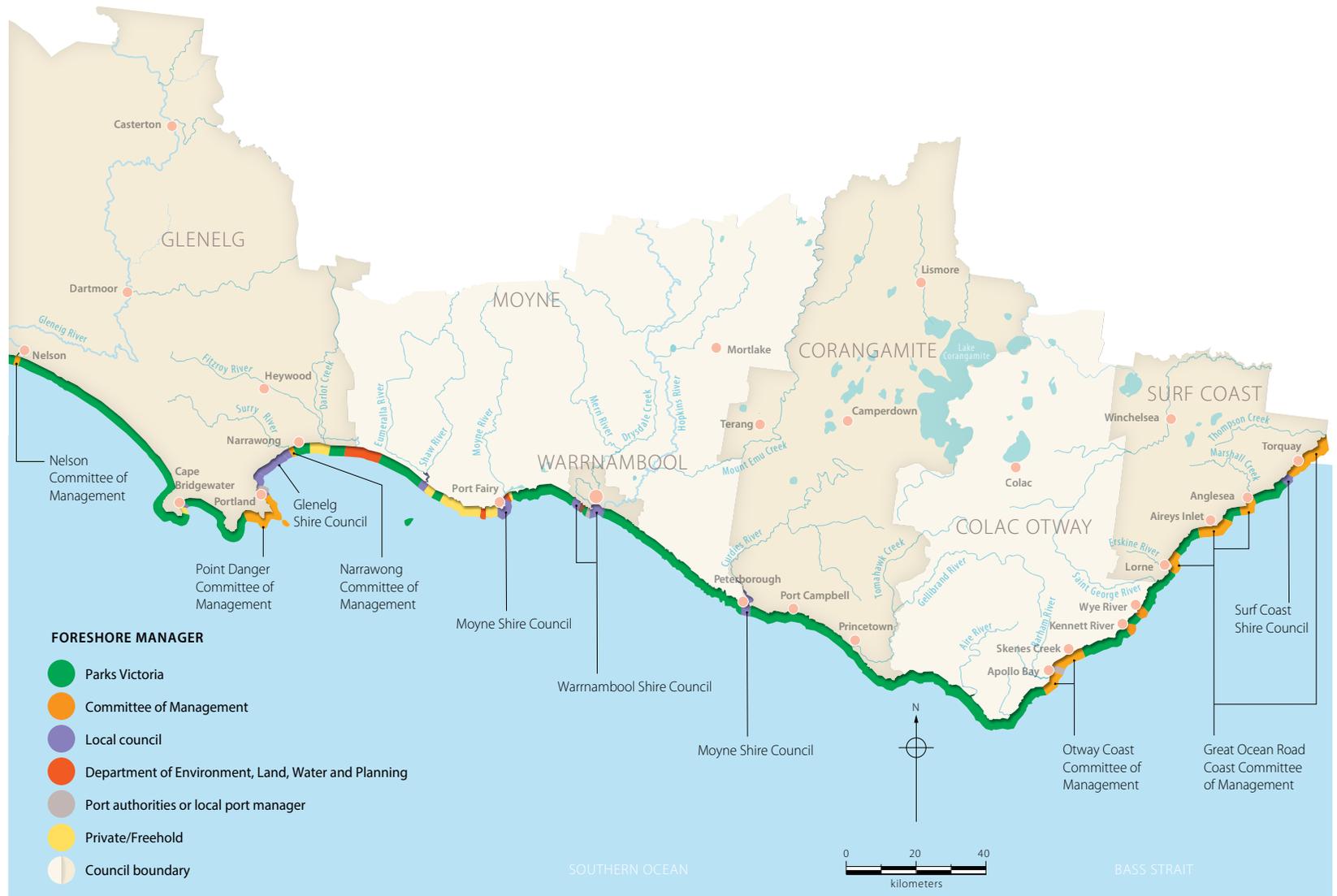


Figure 8 Map of foreshore and waterway managers



Top: Warrnambool foreshore is popular for swimmers and surfers

Above: Retrieving nets
Photo: Guy Werner

Traditional Owners have a range of pre-existing rights and responsibilities for their custodial land that have been formally recognised through the *Native Title Act 1995* (Commonwealth) and the *Traditional Owner Settlement Act 2010* (Victoria). Their involvement in decisions for coasts and sea country are also formally recognised through co-management arrangements, with Parks Victoria, for coastal parks.¹⁹

Commercial port authorities and local ports authorities are responsible for boating and shipping safety on public land and water. The Victorian Coastal Strategy 2014 and elements of the Victorian Planning Provisions (including Clause 18.03 that lists port land use and development strategies) currently guide land-use planning within designated ports. The amenity values offered by ports are also recognised within Regional Growth Plans.

The Apollo Bay Recreation Reserve Master Plan

The Apollo Bay Recreation Reserve is situated on the banks of the Barham River and is managed by the Otway Coast Committee. The Committee manages most of the public open space from Wye River to Apollo Bay and Marengo, providing a highly valued addition to open space managed by Parks Victoria.

Committee-managed land is very popular for recreation, particularly informal activities that depend on an attractive coastal setting. Foreshore areas in and near the towns in the study area are a focal point for informal recreation including sightseeing, socialising, walking, dog walking, camping, beach-going, swimming, surfing, fishing, picnicking, family activities, children's play, cycling and general relaxation. Sporting activities are also provided for at the Recreation Reserve at Apollo Bay.

The Apollo Bay Recreation Reserve Master Plan proposes the installation of at least 10 'deluxe' cabins to complement 7 existing budget-style cabins. It also proposes to provide power to 16 unpowered camping sites for a 45 per cent increase in the number of sites available for casual hire. The overall aim is to significantly increase revenue without significantly increasing recurrent expenditure.

Foreshore managers have a number of tools to guide and support their decisions. A range of tools to implement these decisions are also provided for in the *Coastal Management Act 1995* and the *Crown Land (Reserves) Act 1978* such as consents, permits and regulations.²⁰ They provide for the private leasing of buildings on the foreshore (including camping grounds, marinas and cafes). They also provide for the licensing of particular uses at popular sites to better manage demand, for example competitive allocation of tour operator licenses for certain activities.

Where there is high demand for use of the foreshore – to the point where there is competition between potential users – exclusive use may be provided to particular groups through private leasing of buildings on the foreshore (including camping grounds, marinas and cafes). Public land managers may also license particular uses at popular sites. This is important.

The rent paid to lease or licence coastal Crown land represents a payment to the community for the private use of a publicly owned resource. By paying rent, those receiving a private benefit from the right to occupy and use coastal foreshores make an appropriate payment for that use. Further, rental payments are one of the only sources

of income available to foreshore managers to meet the cost of managing and improving the land under their control. The most commonly used mechanism used to set rentals on Crown land is through a market valuation assessment conducted by a qualified valuer.²¹

Decisions about how to manage for the variety of coastal values on the foreshore are made through the development of Coastal Management Plans. A list of these developed in the Western coastal region are found in Appendix 1.

The foreshore is rich in coastal values; community expectations for its management are set within the Victorian Coastal Strategy 2014 (see page 65). One of the desired outcomes for that strategy is for the built environment on foreshores to be confined to structures whose functionality depends on them being near the water – while also providing significant community benefit.

Surf lifesaving club lookout towers, marinas and boat sheds are examples of buildings whose functionality depend on being near the water. Foreshore managers need to work with the lessees of these buildings to ensure that the siting and design of facilities do not increase coastal hazards or reduce amenity for other users.

5.2 Working together

The efforts and the expertise offered by local foreshore managers, government agencies and volunteers, provides an advantage in managing the values associated with coastal land.

The Department of Environment, Land, Water and Planning (the Department) is currently developing Guidelines for Coastal Management Plans. These plans should follow the Victorian Coastal Strategy's guiding concept of integrated coastal zone management; and promote collaborative foreshore management across public and private tenure. Good management should not be bounded by land tenure; good management means working across land boundaries where it is sensible to do so.

The *Coastal Management Act 1995* provides for Coastal Management Plans on public land but good practice in the Western coastal region has seen the foreshore managers working with adjacent landholders to manage coastal values together.

The Department has recently identified the need for strong governance processes to ensure community expectations of foreshore managers are met and these standards are maintained.²²

The report also identified that there is potential to strengthen coastal management by improving the governance, oversight and support for committees of management.



Deakin University revegetation works at Rooneys Wetland
Photo: Coastcare



Ocean Grove Coastcare and Nippers
Photo: Coastcare

Case study - Otway Eden project

The Otway Eden project is working on weed infestations across the Otway ranges, including the Anglesea Heath, Great Otway National Park and Port Campbell National Park, Otway Forest Park and other Crown land reserves.

The Otway Eden project is a local approach that works with communities and stakeholders to target the threat posed by weeds to high value habitat in the Otways across a landscape without boundaries.

It is co-ordinated by Parks Victoria and is successfully engaging private land holders, different public land managers (Great Ocean Road Coastal Committee, the Department) and the Corangamite Catchment Management Authority in targeting current, new and emerging weed species that can impact natural systems along the coast.

Support from community groups such as ANGAIR and the Southern Otway Landcare Network is critical in the outcomes delivered by the project. In particular, the volunteer support in monitoring has enabled the project to trial innovative methods for weed treatment with great success.

5.3 Key challenges and actions

A range of different organisations manage the coast. There are synergies to be achieved by coordinating their efforts across land boundaries.

The Board believes that a regional approach will help to identify where and how the most benefits will be achieved. This work will guide local decisions, support investment and encourage cooperation.



Tyrendarra Beach Clean-up Project
Photo: Jarred Obst

| Chapter 5 - Foreshore Management Actions | Lead | Partner Agents | By When |
|--|-------|---------------------------------------|-----------|
| 1. Prepare guidelines for the development of Coastal Management Plans (CMPs). | DELWP | WCB, CoM, Local councils, PV | Dec 2015 |
| 2. Work with Traditional Owners in preparing land and sea country plans. | PV | TOs, WCB, CMAs, DELWP, Aus Government | Dec 2018 |
| 3. Ensure there are current coastal Management Plan in place throughout the Western Coastal Region. | WCB | DELWP, Local councils, CoM | June 2020 |
| 4. Develop a process that gets the managers to work together where it is sensible for a Coastal Management Plans to be developed across multiple land managers. From this, local public land managers can put together precinct or master plans. | DELWP | WCB, Local councils, CoM | June 2016 |
| 5. Investigate and recommend changes to enable Coastal Management Plan to be extended to other areas of coastal land. | DELWP | VCC, WCB, Local councils | 2020 |

WCB – Western Coastal Board, DELWP – Department of Environment, Land, Water and Planning, PV – Parks Victoria, CoM – Committees of Management, TOs – Traditional Owners, VCC – Victorian Coastal Council, CMAs – Catchment Management Authorities, SES – State Emergency Service

6 REGIONAL-SCALE PLANNING FOR COASTAL FLOODING AND EROSION

6.1 Background

A changing climate has the potential to make existing coastal hazards more severe and to bring about increased rates of erosion and more extensive flooding.²³ The primary causes of coastal flooding are storm surges combining with high tides (spring tides) and extreme wave events – these extreme events are predicted to be more common in the future.

The Victorian Coastal Hazard Guide 2012 defines some key terms:

- Coastal erosion – short-term retreat of sandy shorelines as a result of storm effects and climatic variations
- Coastal recession – progressive and ongoing retreat of the shoreline
- Coastal inundation/flooding – the temporary or permanent flooding of low-lying areas caused by high sea level events, with or without the impacts of rainfall in coastal catchments.

It is difficult to separate coastal flooding from other coastal processes such as erosion and recession. Flooding, wind action or wave action may cause erosion and recession. Conversely, erosion can lead to the inundation of low-lying areas.²⁴ For example, erosion of the barrier dune at East Beach at Port Fairy could allow the sea access to the low-lying land behind the dune.

Victoria has a history of effective collaboration between all levels of government, private businesses and individuals in managing emerging challenges. In that context the Commonwealth, Victorian and local governments have begun to better understand and address coastal flooding and erosion.

The Victorian Climate Change Adaptation Plan 2013 sets out how the Victorian Government is managing the risks of a changing climate. Strengthening partnerships with local government councils and communities is a key priority. For example, through the Victorian Adaptation and Sustainability Partnership, funding and mentoring support were provided for adaptation planning and action.

As part of this work, the Future Coasts program produced guidelines, comprehensive data sets and digital models to help Victorians better understand and plan for the risks associated with sea level rise and storm surge. It also worked with local councils to engage their communities in investigating their local needs and opportunities.

The Victorian Coastal Strategy 2014 envisages regional and local adaptation plans being produced to enable the strategic management of coastal hazards of flooding and erosion to public and private land. The Victorian Government has developed tools to support this work including coastal flooding mapping that is fit for purpose for strategic planning at the regional scale.



The coastline of the Port Campbell National Park is constantly changing
Photo: Marion Manifold



Beach erosion and damaged beach access at Pea Soup, Port Fairy after storm seas in June 2014
Photo: Jarred Obst

The Department of Environment, Land, Water and Planning is working on a systematic approach to document existing work and identify priority areas where new, or further adaptation planning is required. The map in Figure 9 gives an indication of what the Board considers to be areas requiring more detailed hazard assessment leading to adaptation planning. The proposed regional priority areas are based on technical data, including national datasets²⁵, but importantly it is the community values that are in the area that are of particular significance (listed in Appendix 3).

The methodologies need to take into account storm surge, shoreline erosion and predicted sea level rise. Responses to these issues will benefit from integrated planning approaches and may require protection, retreat or relocation of assets.

Case study – Supporting local responses to adaptation

A key focus of the Victorian Government's Adaptation Program is to strengthen partnerships with local councils and to support them in engaging communities to build climate resilience. The program includes grants to deliver place-based responses.

Currently the program is assisting the collaboration led by:

- Moynes Shire Council to build on the Port Fairy Local Coastal Hazard Assessment to develop an Adaptation Plan
- Colac-Otway Shire Council and others to develop Phase 2 of Climate Resilient Communities of the Barwon South West
- Surf Coast Shire Council to develop a Climate Risk and Adaptation Plan
- Warrnambool City Council to do an Assets at Risk Register and Adaptation Plan.

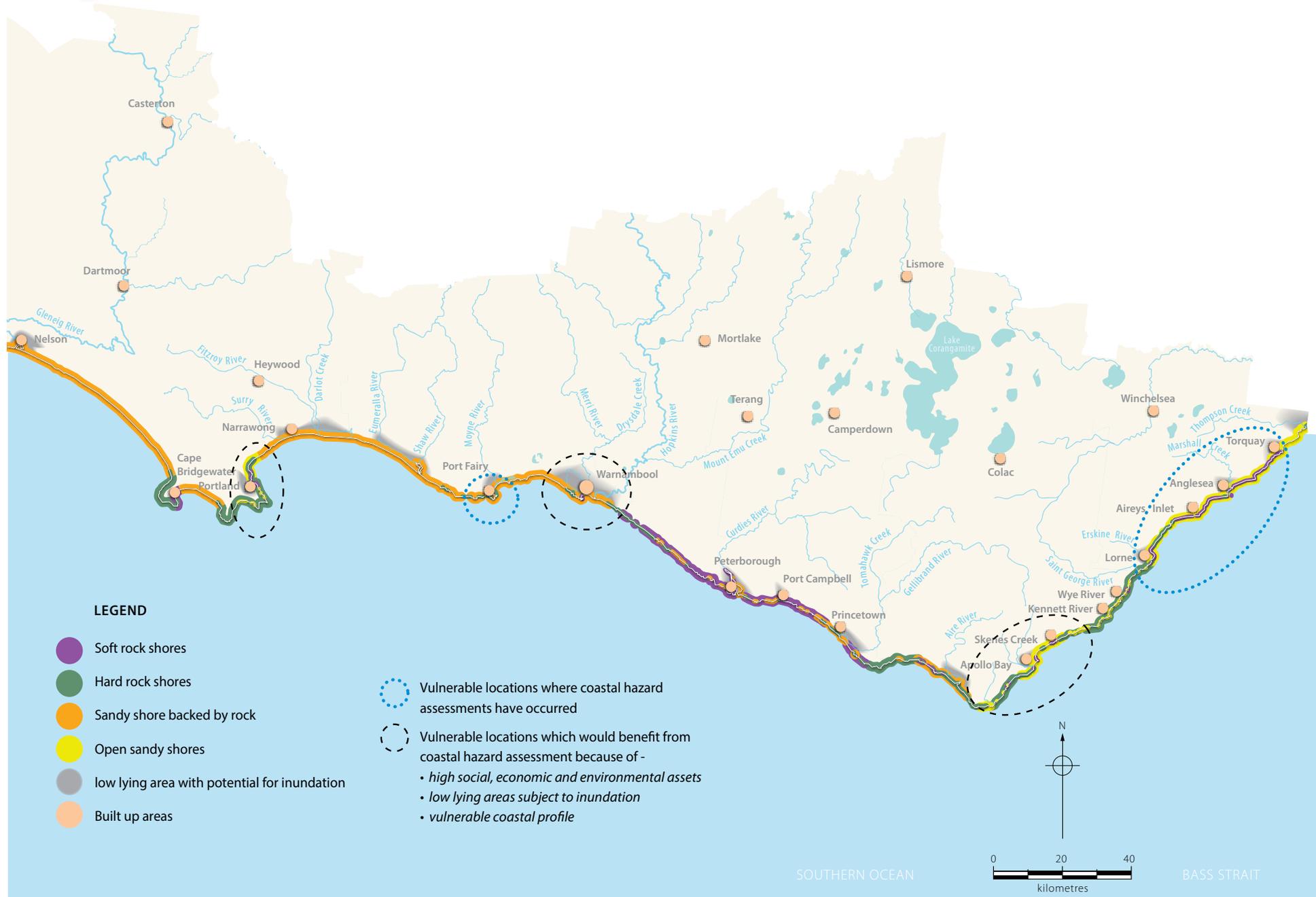


Figure 9 Map of coastal instability and areas for further coastal hazard investigation

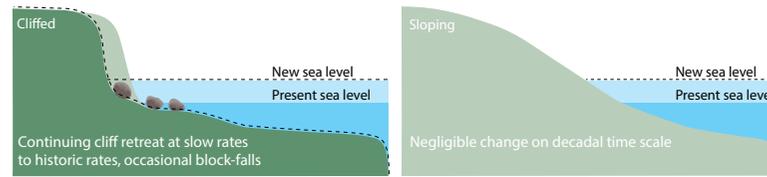
DISCLAIMER: The data used in this map is from the Victorian Coastal Inundation Dataset and the Smartline Coastal Geomorphic Map of Australia and is intended to be used at a regional scale to assist strategic planning and risk management.

Figure 9 Legend: Map of coastal instability and areas of further coastal hazard investigation

Open and Estuarine Coast **Hard-Rock Shores**

These are the most physically robust shores. Low profile shores should expect negligible retreat over human time frames.

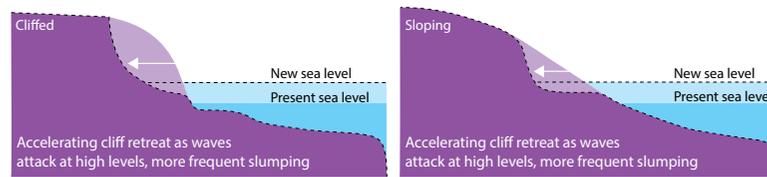
The steeper the more likely to have slumping, rock falls, slab collapses and shoreline retreat.



Open and Estuarine Coast **Soft-Rock Shores**

Erosion is mainly progressive and irreversible. Low profile shore have potential progressive erosion and shoreline retreat.

As the shore profile gets steeper expect more slumping, rock falls and slab collapses.

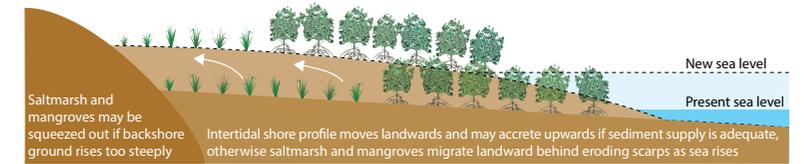


Sandy Shore backed by rock

These shorelines are potentially unstable in response to open coastal processes. Where backed by soft rock there is potential for significant landward recession of the coastline. If backed by hard rock there is potential for beach lowering but little potential for significant landwards shore line recession.

Estuarine Saltmarsh and Mangrove Shores **Muddy Shores**

Potentially highly mobile, subject to erosion and/or accretion, depending on the conditions.

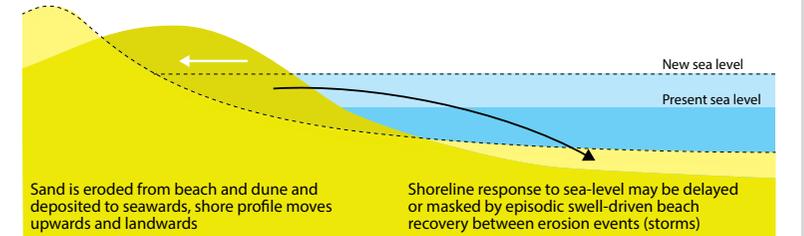


Open Sandy Shores

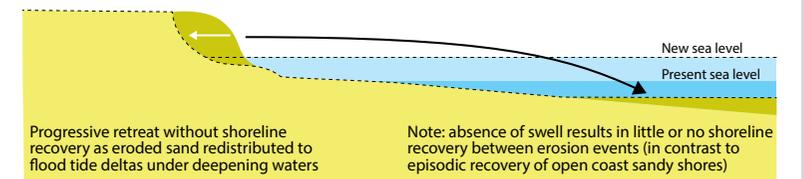
Potentially highly mobile shores with cyclic erosion and accretion. These normal coastal processes may mask underlying progressive changes due to long term processes and environmental changes.

Open Coast **Sandy Beaches**

Already-eroding beaches may recede faster, currently accreting (growing) beaches may continue to accrete more slowly, or switch to receding.



Estuarine **Sandy Shores**





Case study – Ocean Drive, Port Fairy (Port Fairy West Structure Plan)

Working with many agencies is critical to achieving a good outcome in planning for Ocean Drive, Port Fairy. Overtopping of the low-lying dune and Ocean Drive has occurred several times in the past during heavy storms.

The beach is managed by Parks Victoria, while the road is managed by Moynes Shire.

Through the Port Fairy West Master Plan many of these issues are being discussed and prioritised for action among many stakeholders, including the Department of Environment, Land, Water and Planning, Parks Vic and Moynes Shire.

A major outcome for the area is identifying options for those properties at risk and ways to minimise any future coastal hazard risk.

Above: A storm surge washes over the Great Ocean Road at Apollo Bay in May 2005. Photo: Rob Gell

The draft Victorian Floodplain Management Strategy 2014 also makes it plain that where adaptation plans indicate that mitigation infrastructure is required for public benefit, then, in line with government policy, local councils will contribute to the capital costs in cost-sharing arrangements with the Victorian and Commonwealth Governments. The benefiting communities will be responsible for the ongoing management and maintenance costs.

In that context, the Victorian Coastal Strategy 2014 includes an action to analyse options for improved funding arrangements for the management of coastal Crown land.

Cost-benefit-analysis will determine the priority surrounding government contributions. The total costs used in those assessments will take account of the range of social, environmental and economic values associated with the coast, such as the value of beaches and the costs if they are not able to be used by the community.

The Board will encourage the regular updating of adaptation planning in the light of new data, new knowledge and emerging risks in keeping with updates of this Regional Coastal Plan.



Great Ocean Road

6.2 Port Fairy and Barwon South West Coast key projects

The Port Fairy Local Coastal Hazard Assessment analysed the coastline from Cape Reamur to Cape Killarney and Griffiths Island. It considered options for adaptive management responses to present day coastal hazards (particularly, recession of East Beach) and the projected impacts of climate change. The large number of private properties and public buildings at risk within four planning horizons (present, 2050, 2080 and 2100) make it clear that adaptation planning is needed.

Climate Resilient Communities of the Barwon South West Project involved collaboration between the Board and a range of regional bodies including ten local councils and the Department of Environment, Land, Water and Planning. It provides a snapshot of climate risks, levels of preparedness and adaptation priorities for the region. A 'health check'

tool was used to gauge each council's current capacity to adapt to future climate changes and extreme weather events.

Phase 2 of the project looked at options to mitigate key risks to councils brought about by extreme weather events. For example, the Great Ocean Road Resilience project focussed on the potential problem associated with the low-lying, near-shore Apollo Bay to Marengo section of the road.

Case study - Implementing flood studies

Glenelg Shire Council have recently amended flood planning controls for Portland and Narrawong in the Glenelg Planning Scheme, effectively implementing findings of flood studies that looked at coastal influences on the extent of flooding.

The Glenelg Hopkins Catchment Management Authority has supported the Shire to ensure communities have the best available information that incorporates factors such as sea level rise, rainfall intensity and storm surge as well as the more traditional river-based flood factors. Achieving the optimum result that uses appropriate planning thresholds is difficult, considering the importance of protecting property while recognising the community value of this land.

The work has taken into account a range of data to determine the appropriate flood levels to set, including limited tidal information, changes in rainfall intensity and anecdotal information from local community members about historical floods.

A similar approach has been undertaken by Moynes Shire as part of the Port Fairy Local Coastal Hazard Assessment.

6.3 Key challenges and actions

A changing climate holds the potential to make coastal erosion and coastal inundation risks more severe. It is important to think through these issues systematically in order to find appropriate adaptation responses.

The Board believes that a regional approach will help to identify priority areas to carry out flood and erosion studies to help evaluate adaptation options. This work will guide local decisions, support investment and encourage cooperation.



A storm surge erodes the dune at Warrnambool during storm seas in June 2014
Photo: Jarred Obst

| Chapter 6 - Flooding and Erosion Actions | Lead | Partner Agents | By When |
|---|----------------|--|-----------|
| 1. Develop a systematic approach to identify regional priorities for adaptation plans. | DELWP | WCB, Local councils, CMAs, PV | Dec 2016 |
| 2. Work with councils in priority areas to continue, or undertake new adaptation planning and implementation. | Local Councils | DELWP, WCB, RDV, CoM, CMAs | June 2018 |
| 3. Refine methodologies for conducting flood studies and erosion studies in coastal areas. | DELWP | CMAs, WCB | Dec 2017 |
| 4. Determine the nature of the desirable outputs of those studies. Those outputs may include: | DELWP | WCB, Local councils, RDV, CoM, CMAs, SES | Dec 2020 |
| a. draft components for municipal emergency plans; | SES | Local government councils | |
| b. draft planning scheme amendments; | Local councils | CMAs, DELWP | |
| c. viable mitigation options (if any); and | Local Councils | CMAs, DELWP, CoM | |
| d. viable long term options for retreat (if necessary) | Local Councils | CMAs, DELWP, CoM | |

WCB – Western Coastal Board, DELWP – Department of Environment, Land, Water and Planning, PV – Parks Victoria, CoM – Committees of Management, TOs – Traditional Owners, VCC – Victorian Coastal Council, CMAs – Catchment Management Authorities, SES – State Emergency Service, RDV – Regional Development Victoria

Rockpool in the Merri
Marine Sanctuary
Photo: Parks Victoria



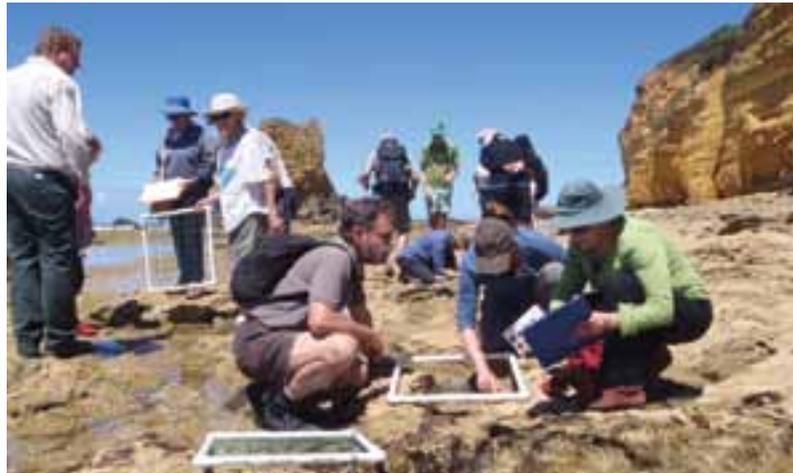
7 SUPPORTING COMMUNITIES CARING FOR THE COAST

7.1 Background

Local action and involvement in the management of our coasts is critical. There are more than 60 coastal community conservation organisations, including Coastcare and 'friends' groups, in the Western coastal region. There are also six community-based committees of management, large and small, whose members contribute thousands of hours of their time to manage of the many parcels of coastal Crown land.

Volunteer groups and individuals give generously of their time, knowledge and energy to deliver on-ground projects that contribute to our knowledge, improve environmental outcomes and make a difference to local communities.²⁶ The Board values the work of volunteers and will work with them where possible to provide them with positive and rewarding experiences. This includes facilitating input into statewide and regional strategies, as well as local plans.

Community awareness and education about our coastal and marine areas is essential to improve our understanding of community values. Programs such as Summer by the Sea foster volunteer community groups and coastal management agencies to share their expertise and local experience with visitors over Summer. User groups such as Victorian Surf Lifesavers, angling groups and boating groups are also involved in building community understanding of the coast.



Community involvement in 'hands-on' management (for example as part of a community group, Coastcare or Landcare group) and in planning and decision-making (for example as a member of a Committee of Management, Regional Coastal Board or Victorian Coastal Council) is central to Victoria's model of coastal management. The Board is committed to enabling and nurturing active community involvement in managing the coast.

There are opportunities for local landholders and community groups to work with State Government to protect community coastal values. Local public land managers throughout the Western coastal region provide incentives and grants to engage the wider public and involve them in work to protect coastal values. One area of community action that has proven popular is monitoring of beaches. In line with the Coastcare Strategy 2011-2015, there is an

Community groups have an important role measuring changes - Sea Search surveys at Eagle Rock Marine Sanctuary
Photo: Parks Victoria

opportunity for organisations such as Coastcare to promote the use of local community data by coastal planners and managers and develop monitoring guidelines to improve the comparability of data collected.²⁷

Community groups in the Western coastal region are keen to learn from Traditional Owners in the region and should be supported to work on joint coastal projects with them. Opportunities to raise the cultural awareness of coastal communities should be pursued. Involving the broader Indigenous community of Victoria can also help build better coastal projects that involve all regional communities.

Case study - Peek Whurrong Coastcare

Deen Maar is on the South-west coast of Victoria, near the community of Yambuk. It was declared an Indigenous Protected Area as part of the National Reserve System in 1999. This land is of special spiritual significance to local Aboriginal people and has spiritual and visual connection with Deen Maar Island (Lady Julie Percy Island) where Bunjil, the Creator, left this world. This land and its story are connected to Gariwerd (the Grampians National Park).

There has been much work done to manage the sensitive coastal and river zones of the 453 hectare property of rolling sand dunes, limestone ridges, river, lake and wetlands. Aboriginal and non-Aboriginal land management techniques are being used and this is an exciting approach to caring for country: using the best current technology alongside generations of wisdom from the traditional custodians of the land.

One project of importance is the Basin Midden Protection Project which consisted of on-ground restoration works to stabilise dunes and protect surface material from wind erosion. This involved refurbishing an existing wire fence, incorporating jute logs and installing brush fence panels to the western end of the area. The perimeter fence was also reinstated. A specialised contractor led these works with volunteer support from local Aboriginal communities and Coastcare.



Peek Whurrong
Photo: Coastcare

It is important to provide clarity about the roles, responsibilities and expectations for all regional agencies involved in managing the coast – especially where operating boundaries overlap. The Board will work to clarify regional roles and responsibilities and ensure that important initiatives are not delayed.

The Board also has a role in providing opportunities for networking and knowledge exchange between different groups and agencies. Our coastal communities continue to change, and there is an ongoing need to support information sharing to make the most of our coastal management experience and promote innovation.

There is a need to maximise our efforts to support and encourage community involvement on the coast. For example programs that provide resources specifically for the involvement of volunteers (eg. Reefwatch, Fishcare, Seasearch and EstuaryWatch) are important and should continue to be resourced.

Future processes to appoint the Regional Coastal Board and any coastal committees of management should strive to recruit a diverse range of people.²⁸ Factors such as gender, disability as well as Indigenous, cultural and linguistically diverse representation should be considered. Also, even though Aboriginal communities and Traditional Owners already have many interests and roles in coastal management, they should also be encouraged to be involved in this work.



Learning about the marine environment as part of Parks Victoria's Summer by the Sea program at Warrnambool
Photo: Parks Victoria



Volunteer divers enter the water at Apollo Bay Harbour to remove the invasive pest Japanese kelp (*Undaria sp*)
Photo: Parks Victoria

7.2 Actions

| Chapter 7 - Implementation Actions | Lead | Partner Agents | By When |
|--|-------|---------------------------------------|----------|
| 1. Work with partner organisations to organise: | | | |
| a. a biennial regional coastal conference | WCB | DELWP, CMAs, Local councils, TOs, CoM | Dec 2016 |
| b. regular information sharing events | WCB | CMAs, Local councils, DELWP, CoM | ongoing |
| 2. Work with the Statewide Coastcare program to: | DELWP | | |
| a. support volunteers to collect coastal erosion data to inform local decision-making | DELWP | WCB, VCC, CMAs, Local councils, CoM | ongoing |
| b. support community groups to better link with Traditional Owners to work on joint coastal projects. | DELWP | WCB, TOs, CMAs, PV | ongoing |
| 3. Promote and support the work done by all local coastal and marine community groups, specifically Reefwatch, Seasearch, Fishcare and EstuaryWatch. | WCB | PV, CMAs, Local councils, DELWP | ongoing |

WCB – Western Coastal Board, DELWP – Department of Environment, Land, Water and Planning, PV – Parks Victoria, CoM – Committees of Management, TOs – Traditional Owners, VCC – Victorian Coastal Council, CMAs – Catchment Management Authorities, SES – State Emergency Service

8 MONITORING, EVALUATION AND REPORTING

Monitoring, evaluating and reporting on the condition of the coast and the implementation of actions is fundamental to efficiently and effectively protect and enhance coastal values. The Victorian Coastal Council in partnership with the Western Coastal Board and other agencies will develop a state framework to monitor the condition of Victoria's coast and the delivery of actions set out in the Victorian Coastal Strategy 2014, Regional Coastal Plans and Coastal Management Plans.

Evaluation of the condition of the Western coastal region's values is undertaken by a number of agencies, including the catchment management authorities, committees of management and local government. Results are publicly reported, in documents such as the Index of Stream Condition and the Index of Estuary Condition.

The accountabilities and timelines for the delivery of the actions of this plan set out in the following table provides the basis for reporting on the implementation of this plan. The Board will report annually to the Victorian Coastal Council on progress and this Plan will be reviewed in 2020.

| Chapter 4 - Visitation Actions | Lead | Partner Agents | By When |
|---|-------|---|-----------|
| 1. Develop a Visitation Demand Framework to guide local decisions, support investment and communicate with users. | WCB | Local councils, DELWP, PV, user groups | Dec 2016 |
| 2. Work with public land managers and waterway managers to: | | Local councils | Dec 2016 |
| a. map and categorise visitation infrastructure throughout the region: | DELWP | WCB, Local councils, CoM, Western Ports | |
| b. develop a service-level hierarchy for visitation infrastructure; and | WCB | DELWP, VCC | |
| c. document existing approaches to demand management (including parking fees, entrance fees, camping fees, leasing arrangements, licensing arrangements and the use of smart-phone apps to notify visitors to avoid congested areas). | WCB | DELWP, PV, Local councils, CoM, | |
| 3. Identify priority areas for visitation demand management. In particular identify: | | | June 2020 |
| a. resilient parts of the landscape where visitation can be encouraged; | WCB | Local councils, DELWP, CoM, Tourism boards | |
| b. vulnerable parts of the landscape where demand might be reduced by encouraging visitors towards alternative sites; and | WCB | Local councils, DELWP, CoM, Tourism boards, TOs | |
| c. vulnerable parts of the landscape that provide sought after visitor experiences where there is limited scope to reduce demand. | WCB | Local councils, DELWP, CoM, Tourism boards | |

WCB – Western Coastal Board, DELWP – Department of Environment, Land, Water and Planning, PV – Parks Victoria, CoM – Committees of Management, TOs – Traditional Owners, VCC – Victorian Coastal Council, CMAs – Catchment Management Authorities, SES – State Emergency Service, RDV – Regional Development Victoria

| Chapter 5 - Foreshore Management Actions | Lead | Partner Agents | By When |
|---|----------------|--|-----------|
| 1. Prepare guidelines for the development of Coastal Management Plans (CMPs). | DELWP | WCB, CoM, Local councils, PV | Dec 2015 |
| 2. Work with Traditional Owners in preparing land and sea country plans. | PV | TOs, WCB, CMAs, DELWP, Aus Government | 2020 |
| 3. Ensure there are current Coastal Management Plan in place throughout the Western coastal Region. | WCB | DELWP, Local councils | June 2020 |
| 4. Develop a process that gets the managers to work together where it is sensible for a Coastal Management Plan to be developed across multiple land managers. From this, local public land managers can put together precinct or master plans. | DELWP | WCB, Local councils, CoM | Dec 2015 |
| 5. Investigate and recommend changes to enable Coastal Management Plans to be extended to other areas of coastal land. | DELWP | VCC, WCB, Local councils, | 2020 |
| Chapter 6 - Flooding and Erosion Actions | Lead | Partner Agents | By When |
| 1. Develop a systematic approach to identify regional priorities for adaptation plans. | DELWP | WCB, Local councils, CMAs, PV | Dec 2016 |
| 2. Work with councils in priority areas to continue, or undertake new adaptation planning and implementation. | Local Councils | DELWP, WCB, RDV, CoM, CMAs | June 2018 |
| 3. Refine methodologies for conducting flood studies and erosion studies in coastal areas. | DELWP | CMAs, WCB | Dec 2017 |
| 4. Determine the nature of the desirable outputs of those studies. Those outputs may include: | DELWP | WCB, Local councils, RDV, CoM, CMAs, SES | 2020 |
| a. draft components for municipal emergency plans; | SES | Local government councils | |
| b. draft planning scheme amendments; | Local councils | CMAs, DELWP | |
| c. viable mitigation options (if any); and | Local Councils | CMAs, DELWP, CoM | |
| d. viable long term options for retreat (if necessary) | Local Councils | CMAs, DELWP, CoM | |

9 REFERENCES

| Chapter 7 - Implementation Actions | Lead | Partner Agents | By When |
|--|-------|---------------------------------------|----------|
| 1. Work with partner organisations to organise: | | | |
| a. a biennial regional coastal conference | WCB | DELWP, CMAs, Local councils, TOs, CoM | Dec 2016 |
| b. regular information sharing events | WCB | CMAs, Local councils, DELWP, CoM | ongoing |
| 2. Work with the Statewide Coastcare program to: | DELWP | WCB, VCC, CMAs | ongoing |
| a. support volunteers to collect coastal erosion data to inform local decision-making; and | DELWP | WCB, VCC, CMAs, Local councils, CoM | |
| b. support community groups to better link with Traditional Owners to work on joint coastal projects. | DELWP | WCB, TOs, CMAs | |
| 3. Promote and support the work done by all local coastal and marine community groups, specifically Reefwatch, Seasearch, Fishcare and EstuaryWatch. | WCB | CMAs, Local government DELWP | ongoing |

Chapter 2 Coastal values

- Corangamite CMA (2009) Marine and Coastal Biodiversity Strategy (in partnership with the Western Coastal Board)
- Victorian Coastal Council (2006) Coastal Spaces Recommendations – Coastal Settlement Framework
- Corangamite CMA (2014) Regional Waterway Strategy
- Department of Transport, Planning and Local Infrastructure (2014) Great South Coast Regional Growth Plan
- Gunditjmarra people (2010) The People of Budj Bim. Engineers of aquaculture, builders of stone house settlements and warriors defending country
- Victorian Coastal Council (2012) Coastal and Marine Environment Community Attitudes & Behaviour
- Regional Development Australia (2012) Great Ocean Road Destination Management Plan
- Regional Development Victoria (2012) Great South Coast Regional Strategic Plan
- Regional Development Victoria (2012) Great South Coast Regional Strategic Plan
- Australian Bureau of Statistics, (2011). Census of Population and Housing 2006 and 2011. Accessed via profile.id.com.au
- Department of Transport, Planning and Local Infrastructure (2014) Great South Coast Regional Growth Plan

Chapter 3 The dynamics of the coast

- Department of Sustainability and Environment (2012) Victorian Coastal Hazard Guide
- Department of Sustainability and Environment (2012) Victorian Climate Change Adaptation Plan
- Department of Transport, Planning and Local Infrastructure (2014) Victoria in Future 2014
- Department of Transport, Planning and Local Infrastructure (2011) Towns in Time 1981-2011
- Australian Government (2011) Great Ocean Road World Class Tourism Investment Study

Chapter 4 Managing regional visitation pressures and maximising access

- Victorian Coastal Council (2007) A Levels of Service Framework for the Coast
- Victorian Coastal Council (1998) Siting and Design Guidelines for the Victorian Coast

Chapter 5 A regional approach to foreshore management

- Parks Victoria, Gunditj Murring Traditional Owners Aboriginal Corporation and Winda Mara Aboriginal Corporation (2013) Draft Ngootyoong Gunditj Ngootyoong Mara South West Management Plan

- Department of Environment and Primary Industries (2011) Committees of Management Responsibilities and Good Practice Guidelines
- Department of Sustainability and Environment (2010) Leasing Policy for Crown Land in Victoria
- Victorian Auditor General Office (2014) Oversight and Accountability of Committees of Management

Chapter 6 Regional-scale planning for coastal flooding and erosion.

- Department of Sustainability and Environment (2012) Victorian Coastal Hazard Guide
- Department of Environment and Primary Industries (2014) Draft Victorian Floodplain Management Strategy
- Geoscience Australia (2008) Smartline Coastal Geomorphic Map of Australia (<http://www.ozcoasts.gov.au/coastal/introduction.jsp>)

Chapter 7 Supporting communities caring for the coast

- Victorian EPA (2012) Environmental Citizenship Strategy
- Coastcare Victoria Strategy 2011-2015 (2011)
- Victorian Government (ongoing) Appointment and Remuneration Guidelines for Victorian Government boards, Statutory Bodies and Advisory Committees

APPENDICES

Appendix 1 – Western coastal region’s coastal and marine plans

Many organisations with land and water management responsibilities have developed local and regional plans with direct and indirect implications for the coast. These plans seek to implement the Victorian Coastal Strategy and Coastal Action Plans and a wide range of other state, regional and local strategic plans. The key planning documents can be found in the following tables.

1. Coastal Management Plans under the *Coastal Management Act 1995*

| Organisation | Plan | Status |
|--|---|----------------|
| Great Ocean Road Coast Committee of Management | Coastal Management Plan 2010 | Implementation |
| Otway Coast Committee of Management | Otway Coast Committee Coastal Management Plan 2013 | Implementation |
| Warrnambool City Council | Warrnambool City Council Coastal Management Plan 2014 | Released 2014 |

2. Park Management plans developed by Parks Victoria

| Park reserves with Park Management Plans |
|---|
| Discovery Bay Marine National Park |
| Point Addis Marine National Park |
| Twelve Apostles Marine National Park |
| Eagle Rock Marine Sanctuary (<i>Point Addis Marine National Park</i>) |
| Marengo Reefs Marine Sanctuary |
| Merri Marine Sanctuary |
| Point Danger Marine Sanctuary (<i>Point Addis Marine National Park</i>) |
| The Arches Marine Sanctuary (<i>Twelve Apostles Marine National Park</i>) |
| Great Otway National Park |
| Port Campbell National Park |
| Cape Otway Cemetery (<i>Port Campbell National Park</i>) |
| Loch Ard Cemetery (<i>Port Campbell National Park</i>) |
| Bay of Islands Coastal Park (<i>Port Campbell National Park</i>) |
| Discovery Bay Coastal Park (<i>Discovery Bay Parks Marine Park</i>) |
| Cape Nelson State Park (<i>Discovery Bay Parks Marine Park</i>) |
| Cape Nelson Lighthouse Reserve (<i>Discovery Bay Parks Marine Park</i>) |
| Cape Otway Lighthouse Reserve (<i>Great Otway National Park</i>) |

Hiking on the Great Ocean Walk
Photo: Mark Watson, Tourism Victoria



3. Other Coastal Plans

| Organisation | Strategy/Plan | Status/date released |
|--|--|----------------------|
| Gunditjmara Traditional Owners, Parks Victoria and DELWP | Ngootyoong Gunditj Ngootyoong Mara | 2013 |
| Framlingham Aboriginal Trust and Winda Mara Aboriginal Corporation | Kooyang Sea Country | Complete |
| Corangamite CMA | Corangamite Marine and Coastal Biodiversity Strategy (in partnership with the Western Coastal Board) | 2009 |
| | Corangamite Regional Catchment Strategy | Commenced |
| | Corangamite Regional Waterway Strategy | Released 2014 |
| | Revised Anglesea River Estuary Management Plan | Underway |
| Glenelg Hopkins CMA | Implications of Future Climate for Victoria's Marine Environment (Klemke J. & Arundel H., ed) | 2013 |
| | Fitzroy Estuary Management Plan | Complete |
| | Glenelg Hopkins River Health Strategy 2004-2009 | |
| | Glenelg River Estuary Management Plan | Complete |
| | Hopkins River Estuary Management Plan | Complete |
| | Merri Estuary Management Plan | Complete |
| | Surry Estuary Management Plan | Complete |
| | Surry River Flood Study | Complete |
| | Yambuk Lake Estuary Management Plan | Complete |
| Glenelg Hopkins CMA and Moyne Shire Council | Flood Study for Port Fairy | Complete |
| Moyne Shire Council | Port Fairy Local Coastal Hazard Assessment | |
| Colac Otway Shire Council | Apollo Bay Harbour Master Plan | Complete |
| Surf Coast Shire Council | Anglesea River & Estuary Management Plan 2012-2020 | Implementation |
| | Bells Beach Surfing Reserve Coastal Management Plan & Master Plan 2012 | Implementation |
| Department of Primary Industries | Corangamite Fishery Management Plan | Implementation |
| | Glenelg Hopkins Fishery Management Plan | Implementation |
| | Portland Aquaculture Fisheries Reserves Management Plan | Approved |
| Great Ocean Road Coast Committee of Management | Point Grey and Slaughterhouse Master Plan | Implementation |
| | Torquay Foreshore Master Plan | Complete |
| Otway Coast Committee of Management | Apollo Bay Recreation Reserve Master Plan | Implementation |
| Warrnambool City Council | Levy's Point Coastal Reserve Management Plan | Complete |

Appendix 2 – Priority recommendations from the Review of Coastal Action Plans in Victoria's Western Coastal Region (2012)

| Priority Recommendations from the Western Coastal Board's 2012 Review of local Coastal Action Plans | | Incorporated into Western Regional Coastal Plan |
|---|---|---|
| 7 | <p>a. Regional and local stakeholders should determine which elements of Local CAPs are outstanding and relevant in consultation with the Board, and identify a suitable translation of strategic directions and actions into regional and local coastal planning mechanisms.</p> <p>b. The development of revised Regional CAPs should consider the inclusion of a dedicated municipal section to ensure the consideration of both VCS and regional issues, and provide improved guidance for the development of CMPs.</p> | <p>All of the Regional Coastal Plan, specifically Chapter 4 – Managing regional visitation pressures and maximising access (actions)</p> <p>Chapter 5 – A regional approach to foreshore management (map and actions)</p> |
| 10 | <p>The process to revise Regional CAPs should:</p> <p>a. Consider the inclusion of a scoping study which examines the matters to be addressed by future Regional CAPs and linkages to other strategic planning mechanisms.</p> <p>b. Be aligned with the VCS 2008 mid-term review and the development of the VCS 2013.</p> <p>c. Ensure adequate capacity is available within the Board and key partners to facilitate the implementation of Regional CAPs once they are developed.</p> | <p>Process for developing Regional Coastal Plan included:</p> <ul style="list-style-type: none"> • Scoping phase that included stakeholder meetings and submission process • Alignment with Victorian Coastal Strategy 2014 • Consultation with partners and the community |
| 13 | <p>Retain the planning framework and guidance provided by Estuaries CAPs to support the development of management planning approaches for outstanding and minor estuaries until the Victorian Waterway Management Strategy (formerly VSHREW) is developed and Regional Catchment Strategies and their supporting strategies are revised.</p> | <p>Victorian Waterway Strategy is released and Regional Waterway Strategies have been released. Estuary Plans have also been released.</p> <p>Regional Catchment Strategies were revised in 2013 and 2014</p> |
| 14 | <p>a. Retain Regional CAPs as a central component of the coastal planning framework and refine them to deliver ICZM at a regional and sub-regional scale.</p> <p>b. Key stakeholders should work together to improve and clarify linkages between CAPs and the VCS.</p> | <p>Regional Coastal Plan identified within the Victorian Coastal Strategy 2014 in complementary role in guiding coastal decision makers</p> |
| 16 | <p>a. Linkages between CAPs, CMPs and the Act consent process should be clarified and enhanced by key stakeholders to deliver ICZM and the objectives of the Act.</p> <p>b. DSE should consider funding the preparation of CMPs to ensure that local levels of prescription are not lost.</p> <p>c. Relevant strategic directions and actions in Local CAPs should be incorporated into CMPs following the development of a second generation of CAPs.</p> | <p>Chapter 5 – A regional approach to foreshore management (map and actions)</p> <p>Chapter 7 – Supporting communities caring for the coast (description and actions)</p> |
| 20 | <p>a. Regional CAPs should be revised to provide subregional guidance for the development of coastal Crown land management plans (CMPs) and improved linkages between the VCS, CAPs and CMPs.</p> <p>b. DSE and key stakeholders should continue to improve the level of support for the development of CMPs.</p> | <p>Chapter 5 – A regional approach to foreshore management (map and actions)</p> |
| 28 | <p>a. The Board should work with Government, VCC, other RCBs and DSE to ensure that coordination, implementation and advocacy activities for future CAPs are adequately resourced.</p> <p>b. Improve capacity for the Board to drive and facilitate CAP implementation throughout the duration of CAP program delivery.</p> | <p>The Regional Coastal Plan outlines a plan for the co-ordination of activities, including the Western Coastal Board's involvement in supporting the implementation of the Victorian Coastal Strategy (Chapter 8 Monitoring, evaluation and reporting)</p> |

Appendix 3 – State and regional values associated with key areas identified in Figure 8 (page 23)

The Department of Environment, Land, Water and Planning is working on a systematic approach to identifying regional priorities for adaptation plans. Figure 8 gives an indication of what the Board considers to be areas requiring more detailed hazard assessment leading to adaptation planning. The proposed regional priority areas are based on technical data and community values identified in state and regional planning and management documents outlined in this table.

| Regional or state significant coastal values | Environmental, social/cultural or economic | Reference for significance |
|--|--|---|
| Great Ocean Road – Torquay to Peterborough | Economic | Australian Natural Heritage site, National and State Significant Tourist destination, (Regional Growth Plans) |
| Great Ocean Road – Peterborough to Portland | Economic | Regionally significant tourist destination - (Regional Growth Plans) |
| Deep water Port of Portland | Economic | Asset/utility of national importance (Regional Growth Plans & BSWRC) State marine precinct (Western Boating Coastal Action Plan) |
| Lady Bay Warrnambool | Economic | State marine precinct (Western Boating Coastal Action Plan) |
| Port Fairy, Apollo Bay, Torquay | Economic | Regional Boating facilities (Western Boating Coastal Action Plan) |
| Otways to Port Campbell (Torquay to Peterborough) | Environmental | Corangamite Regional Catchment Strategy 2013-2019 |
| Otway National Park | Economic and Environmental | Economic and Environmental |
| Discovery Bay coast, Cape Bridge Water and Cape Nelson | Social | State significant landscape - Coastal Spaces Landscape Assessment Study 2006 |
| Glenelg River estuary, Mount Clay and Narrawong coast, Yambuk Lakes, Port Fairy to Warrnambool. | Social | Regionally significant landscape - Coastal Spaces Landscape Assessment Study 2006 |
| Great Ocean Road coast Warrnambool to Torquay | Social | State significant landscape - Coastal Spaces Landscape Assessment Study 2006 |
| Coastal cliffs and hinterland, Peterborough and Port Campbell, Cape Otway , Apollo Bay to Lorne, Bells Beach | Social | Nationally significant landscape - Coastal Spaces Landscape Assessment Study 2006 |
| National Parks and Reserves | Environmental | State and National legislation |
| Ramsar-listed wetlands | Environmental | International agreement |

Appendix 4 – Victorian Coastal Strategy 2014 actions to be included in Regional Coastal Plans

| Current Victorian Coastal Strategy actions involving Regional Coastal Boards | Incorporated into Western Regional Coastal Plan |
|---|---|
| Understand and reflect the nature of ecosystem goods and services in Regional Coastal Plans, Regional Catchment Strategies and Coastal Management Plans (RCBs, DELWP, CMAs, CoM, LGs, PV) | Chapter 2 – Coastal values (description of non-commercial economic values) |
| Provide a framework for facilitation of tourism development along the coast through a range of mechanisms including Regional Coastal Plans, local planning schemes, master plans, coastal management plans and management of safety issues for vessel operators and the general public; a framework should include strategic planning for how increasing tourism and visitation will be experienced and managed along the coast (RCBs, LGs, DSDBI, PV, TV, RTBs, CoM, VCC, DELWP) | Chapter 4 – Managing regional visitation pressures and maximising access (actions) |
| Incorporate within Regional Coastal Plans information about marine areas with significant environmental, social, cultural and economic values, marine ecological and oceanographic processes, and potential threats (RCBs, DELWP, CMAs, OAAV, HV, LGs) | Chapter 2 – Coastal values (map and description) |
| Incorporate within Regional Coastal Plans information about wetlands and estuaries, including: a. significant environmental, social, cultural and economic values b. vulnerability to the potential impacts of a changing climate and population growth, use and development, and a process to regularly assess and review their condition (RCBs, DELWP, PV, CMAs, LGs) | Chapter 2 – Coastal values (map and description) Chapter 4 – Managing regional visitation pressures and maximising access (actions) Chapter 6 – Regional-scale planning for coastal flooding and erosion (description and actions) |
| Identify and address coastal areas of ecological significance that are vulnerable to the impacts of a changing climate, by: a. making use of existing information and methodologies b. incorporating these areas into Regional Coastal Plans, Park Management Plans, and Coastal Management Plans c. considering these areas when developing a state coastal risk plan | Chapter 2 – Coastal values (map and description) Chapter 3 – The dynamics of the coast (map and description) Chapter 4 – Managing regional visitation pressures and maximising access (actions) Chapter 6 – Regional-scale planning for coastal flooding and erosion (description and actions) |
| Identify water quality hotspots for priority action in Regional Coastal Plans (RCBs, CMAs, WCs) | Chapter 2 – Coastal values (description) |
| Incorporate cultural heritage and traditional knowledge into Regional Coastal Plans, Regional Catchment Strategies, Coastal Management Plans and management agreements (RCBs, CoM, LGs, PV, CMAs) | Chapter 2 – Coastal values (map and description) Chapter 5 – A regional approach to foreshore management (map and actions) Chapter 7 – Supporting communities caring for the coast (description and actions) |
| Develop Regional Coastal Risk Assessments to strategically and consistently identify and prioritise coastal hazards management for key public (environmental, cultural and economic) assets. Include information about natural and built assets at risk of loss from erosion, inundation and cliff hazards in Regional Coastal Plans and consider adaptation responses. Together, these plans will provide a statewide perspective of coastal risk in Victoria (DELWP, PV, HV, CMAs, WCs, LGs, CoM) | Chapter 3 – The dynamics of the coast Chapter 6 – Regional-scale planning for coastal flooding and erosion (description and actions) |
| Within Regional Coastal Plans establish a strategic planning framework for local ports and plan for local port infrastructure to meet the current and future needs of recreation and tourism activities and to contribute positively to the local character (RCBs, DELWP, Port Managers) | Chapter 4 – Managing regional visitation pressures and maximising access (description of continued implementation of Boating hierarchy, actions) |
| Incorporate existing Boating Coastal Action Plan information into Regional Coastal Plans (RCBs, DELWP) | Chapter 4 – Managing regional visitation pressures and maximising access (description of continued implementation of Boating hierarchy, actions) |
| Provide opportunity for networking and knowledge exchange between state, regional and local coastal communities, planners, managers and other stakeholders | Chapter 7 – Supporting communities caring for the coast |



The Surfing Beach, Torquay, Victoria. c1920-1954
Rose Stereograph Co.

