

Flora

The flora of the study area and contiguous lands in the Otway Plain and Otway Ranges Bioregions is extremely species-rich with approximately 1150 taxa or 30% of the total indigenous vascular flora (flowering plants and ferns) of Victoria. Over 68 plant taxa of National and State significance have been recorded within the general area.

The richness of the flora at small to larger geographic scales – from hectares to drainage catchment (e.g. Anglesea River) – is a function of the diverse physical environments, including the coastal influences, and estuarine and freshwater wetlands; and the typically low-nutrient soils supporting exceptionally species-rich heathland or heathy woodland vegetation.



High quality estuarine vegetation at Cumberland River

Included in the list of plant taxa from the study area and adjoining land, there are seven endemic or near-endemic species and infraspecific taxa some of which are undescribed. Four of these were recorded during this study:

- Otway Grey-gum (*Eucalyptus litoralis*) (vulnerable - DSE 2005)
- Bellarine Yellow-gum (*E. leucoxylon* ssp. *bellarinensis*) (Listed - FFG Act 1988, endangered – DSE 2005)
- Anglesea Correa (*Correa reflexa* ssp. *nov.*) (Anglesea) (just outside the study area)
- Correa (*Correa reflexa* s.l., Eastern View) (just outside the study area)

These outstanding values confer national and international significance to the flora of the area.

Ecological Vegetation Classes

The study area contains several threatened Ecological Vegetation Classes (EVCs) i.e. Coastal Headland Scrub, Coastal Dune Scrub, Estuarine Wetland and Damp Sands Herb-rich Woodland (see Table 3 overleaf).

Appendix 5 provides information about the extent of each EVC in the two bioregions in GORCC's area.

The Grassy Woodland EVC is a priority for protection due to its current extent in the Otway Plains Bioregion being less than 15% of pre-1750 extent and less than 30% of the remaining vegetation is managed for conservation purposes.

The highest priority for enhancing EVCs are those with a bioregional conservation status of endangered. This includes the Grassy Woodland and Coastal Alkaline Scrub EVC's in the Otway Plains Bioregion and the Coastal Saltmarsh / Mangrove Shrubland Mosaic EVC in the Otway Ranges Bioregion.

Second highest priorities for enhancement are those EVCs with a status of vulnerable, followed by those which are rare or depleted, and those which are of least concern (see table 3 for status listings).

Note: New data will be available in 2007 which will provide greater detail about the extent, condition and priorities for management for EVCs in GORCC's area.

Table 3: Ecological Vegetation Classes recorded between Torquay and Lorne according to Management Areas (Conservation status in each Bioregion is also indicated).

E – Endangered, V – Vulnerable, D- Depleted, R – Rare, LC – Least concern

EVC no.	EVC name	Area A	Area B	Area C	Area D
		Otway Plains Bioregion		Otway Ranges Bioregion	
161	Coastal Headland Scrub	V	V	D	D
1	Coastal Dune Scrub/Coastal Dune Grassland Mosaic	D	D	D	D
3	Damp Sands Herb-rich Woodland				V
45	Shrubby Foothill Forest				LC
18	Riparian Forest				LC
48	Heathy Woodland			LC	
163	Coastal Tussock Grassland	V		V	
302	Coastal Saltmarsh/Mangrove Shrubland Mosaic			E/V	
6	Sand Heathland		R		
175	Grassy Woodland	E			
858	Coastal Alkaline Scrub	E	E		
198	Sedgy Riparian Woodland			D	
845	¹ Seagrass Meadow	V			
842	¹ Saline Aquatic Meadow	V			

¹ These EVCs were identified during the site assessment, and have not been previously mapped for the study area (see DNRE 2003).

Fauna

The study area contains habitat suitable to support populations of national and state significant fauna species (see table 4). Those observed during this study are indicated in bold. An indication of the Likelihood of Regular Occurrence within each section for each Management area is given (L - Low, M - Moderate, H - High).



Great Egret at Erskine River

Table 4: Populations of National and State Fauna of Significance

Management Area	A – Point Impossible to Jan Juc				B – Anglesea to O'Donohue Road		C – Aireys Inlet to Eastern View			D – Lorne to Cumberland River			
	1	2	3	4	1	2	1	2	3	1	2	3	4
Species of National significance													
Swift Parrot			M									M	
Common Bent-wing Bat													H
Southern Brown Bandicoot				L/M	M		M	L	L			L/M	
Long-nosed Potoroo							L/M						
Species of State significance													
Hooded Plover	M	L				H		L/M					
Rufous Bristlebird				H	H	L/M	H						M/H
Chestnut-rumped Heathwren				M	M/H	L/M	M						
Pacific Gull	H	H		H	H	H	H	H	H	H	M/H		H
Pied Cormorant	H	M/H				H		H	M	M	M		
Caspian Tern	H	H			M/H	H	M/H	M/H	M		M		M
Fairy Tern		L/M				M		L/M			L/M		
Latham's Snipe		M				M		M/H					L/M
Nankeen Night Heron		M				L/M		M					L/M
Great Egret	M/H	M/H				M/H		M/H			M		M
Royal Spoonbill	M/H	M/H				M/H		M/H			M		M
Lewin's Rail	M/H	M/H				M/H		M/H			M		M
Australasian Shoveler	M/H	M/H				M/H		M/H			M		M
Hardhead	M/H	M/H				M/H		M/H			M		M
Musk Duck	M/H	M/H				M/H		M/H			M		M
Barking Owl										L/M			M
Powerful Owl					L/M					L/M		L/M	M
Masked Owl	L/M												M
Spotted Quail-thrush				M	M/H		M						M
White-footed Dunnart				M	M/H		M						M
Swamp Antechinus				L/M	M/H		M	M					
New Holland Mouse				L	L/M								
Swamp Skink				L	L/M								
Otway Black Snail													L

Likelihood of Regular Occurrence (L - Low, M - Moderate, H - High).

Threats to natural values

While much of the vegetation is in excellent condition (a function of low–nutrient soils in the Otway Plain sector) ongoing degradation will ensure that most of the biodiversity values along the coast will be severely compromised or destroyed within several decades in the absence of appropriate management.

The large suite of degradation processes are the direct or indirect result of urban and industrial development and recreational pressures.

Weed invasion – almost always by species that ‘escaped’ from cultivation locally (including numerous Australian plant species) – is overwhelmingly the most serious of these degradation pressures. Of the 272 weed species recorded in the study area, 152 species are identified for control or elimination (volume 2). Of these, 71 are trees or shrubs; 67 are subshrubs, perennial, biennial or annual herbs; 12 are vines and 2 are emergent aquatic species.

The most devastating environmental weed species include Coast Tea-tree, Coast Wattle, Sweet Pittosporum and Bluebell Creeper. Other major weeds include African Boneseed, Mirror Bush, Sweet Hakea, Cotoneaster spp., Bridal Creeper, African Boxthorn, Cape Ivy and Myrtle-leaf Milkwort.

DSE has developed guidelines for managing the environmental impact of weeds on public land focusing on prevention of new and emerging weeds and, for all established weeds, an approach based on asset protection. Weed control priorities for GORCC’s reserves focus on:

1. Species known in Victoria to be highly invasive and destructive in indigenous vegetation
2. Species listed under the Catchment and Land Protection Act 1994 (CaLP) for the Corangamite Catchment Management Region as either regionally controlled or prohibited
3. Species that form part of a threatening process listed on the Flora and Fauna Guarantee Act 1999
4. Species listed as Weeds of National Significance

A table presenting the list of the prioritised weed species (and other specific management actions) for each section is given in appendix 6, with more detailed information on the ecology and control of these species given in Volume 2.

The other main management issues and threats which have been identified that compromise the natural values associated with the study area, and which are considered tractable, include:

- pest and domestic animal management
- erosion of tracks, dunes and cliffs
- infrastructure, landscaping and revegetation issues
- recreational and development impacts
- litter

Table 2 (see previous page) records key threats in each management area and table 5 summarises the main impacts of these threatening process on natural values.

Table 5: Main Impacts of threats on natural values

Threat	Main Impacts on Natural Values
Environmental Weeds	Destruction of indigenous vegetation and fauna habitats; increased fuel loads; hybridisation between indigenous and exotic species; alteration of ecosystem function
Pest and Domestic Animal Management	Dog faeces; disturbance of native vegetation by dogs; predation of native fauna by foxes, cats and dogs; destruction of native vegetation by rabbits, deer.
Erosion	Erosion of tracks; saltation; water quality (runoff leading to turbidity);
Infrastructure, landscaping and revegetation	Functional design problems; non-renewable resource use; off-target damage by herbicide to indigenous vegetation; cultivation of environmental weed species; lack of recruitment of indigenous trees
Recreational and development	Creation of informal tracks; clearance of vegetation; vegetation damage; soil disturbance; surplus tracks; pedestrian access to sensitive areas
Litter	Litter threatening health of wildlife; impacts on streams and estuaries

Management directions and actions to deal with these threats are set out below (and in sections 5.3 and 5.4). These directions and actions link to regional priorities set out in the Corangamite Catchment Management Authority's Native Vegetation Plan, 2003-2008 which aims to protect, restore and enhance native vegetation, as well as associated biodiversity in the Corangamite region. The Plan's vision is:

A reversal, across the entire regional landscape, of the long term decline in the extent and quality of native vegetation leading to a Net Gain¹.

Note 1: Net Gain is the outcome for native vegetation and habitat where overall gains are greater than overall losses, and where individual losses are avoided where possible.

The Native Vegetation Plan includes three goals:

1. Restoring Remnant Vegetation – to maintain the extent of all native vegetation types to at least 2002 levels
2. Enhancing Remnant Vegetation – to enhance the quality of existing native vegetation by managing 70% of native vegetation cover on both public and private land according to best management practices by 2020.
3. Restoring Native Vegetation Communities – to strategically increase overall cover of each Ecological Vegetation Classes to at least 10% of pre-1750 levels by 2020.

Future directions

Biodiversity

- Give very high management priority to protecting & enhancing natural values.
- Focus vegetation management initiatives on protecting species and Ecological Vegetation Classes (EVC) of highest priority for protection and enhancement
- Undertake further assessments to better understand the condition of native vegetation, including habitat hectare assessments
- Develop weed control enhancement programs in all management units giving priority to controlling robust species which can destroy indigenous communities, aggressive weeds currently with small populations, and species with high visual impacts.

Environmental weeds

- *Undertake weed control and/or eradication to protect habitat values and enhance biodiversity. As far as possible, weed management should be coordinated with surrounding land managers.*
- *Weed management activities should conform with the Regional Weed Strategy developed by the Corangamite CMA, DSE and the Department of Primary Industries and the Interim Guidelines and Procedures for Managing the Environmental Impacts of Weeds on Public Land in Victoria 2006 developed by DSE.*
- *Aim to eliminate cultivated species (e.g. eucalypts) that may hybridise with populations of indigenous species (genetic pollution).*
- *Aim to eliminate all cultivated environmental weed species within the study area (e.g. New Zealand Mirror Bush and Ivy at Cumberland River Caravan Park, Sweet Hakea at Anglesea Caravan Park, and Sugar Gums at Taylor Park, Torquay)*
- *Ensure that no environmental weed species are used in amenity plantings in the study area*
- *Implement biological control programs for strategic species (e.g. Bridal Creeper) at the earliest opportunity*
- *All aspects of environmental weed management should be monitored and periodically reviewed to ensure achievement of management objectives, to keep abreast with management control technologies, to identify new weed problems at the earliest stage, and to inform or modify best practice control*

Fauna and animal pests

- *Undertake control of pest animals and regulate the activities of domestic cats and dogs to protect biodiversity values. As far as possible, pest animal control should be coordinated with surrounding land managers.*
- *Consider management of wildlife where significant impacts occur (e.g. koalas in Queens Park)*

Fire management

- *In the event of unplanned fire and wildfire events ensure that soil, flora, fauna and landscape values are not unacceptably damaged during control operations (e.g. bulldozed fire-breaks)*
- *Ensure soil-borne pathogens (e.g. Cinnamon Root-rot Fungus) and weed seeds and vegetative propagules (e.g. bulbs) are not spread on contaminated machinery. If such contamination occurs ensure rapid follow-up management to rectify problems.*
- *In the event of planned or unplanned fire, which may stimulate abundant weed recruitment ensure timely follow-up control activities (this is especially important in dune areas).*
- *Rabbit control may need to be implemented as a priority following fire, to prevent grazing or browsing of regenerating or recruiting indigenous plants.*

Marine and estuarine values

- *Maintain natural deposits of seaweed and marine drift on beaches as important components of food webs and habitats.*
- *Work cooperatively with Surf Coast Shire and other land managers to monitor research, agree on management arrangements and implement estuary management plans.*

Goal 1 Management actions

- 1. Develop and implement vegetation management programs focused on protecting species and Ecological Vegetation Classes of highest priority for protection and enhancement, in conjunction with local volunteer groups and other agencies. ★★★**
- 2. Undertake assessments of vegetation condition, including habitat hectare assessments to further understanding of vegetation priorities. ★★★**
- 3. Report annually on the status, condition, and performance activities for management of natural values. ★★★**
- 4. Develop and implement weed control programs, in conjunction with local volunteer groups and other agencies. ★★★**
- 5. Implement measures to restrict access to sensitive soils, vegetation and fauna habitat of dunes and beaches in selected areas (e.g. significant Hooded Plover habitat at Point Roadknight). ★★★**
- 6. Investigate implementation of local laws to prevent cultivation of selected weed species in consultation with Surf Coast Shire, Parks Victoria, Department of Sustainability and Environment (DSE), Catchment Management Authorities (CMAs) and other relevant agencies. ★★★**
- 7. Implement rabbit control programs to prevent severe soil disturbance and browsing or grazing. ★★★**
- 8. Implement control programs of feral cats and foxes in cooperation with other agencies (e.g. Parks Victoria, Surf Coast Shire). ★★★**
- 9. Review dogs on beaches regulations, including enforcement, education, dog dropping bins. Investigate the need for further regulation in sensitive areas. ★★★**
- 10. Investigate potential to implement controls for domestic cats to confine to property or ideally indoors. ★★**
- 11. Conduct a census and prepare and implement a management plan, as appropriate, to ensure that browsing by excessive koala numbers do not destroy Manna Gums (e.g. Queens Park, Lorne). ★★★**
- 12. Monitor research on estuaries and liaise with other agencies regarding appropriate management actions to open estuary mouths. ★★**
- 13. Convene a meeting of key stakeholders to determine and develop an appropriate planning and management mechanism for estuaries within GORCC's jurisdiction (Spring Creek, Moggs Creek, St Georges River, Erskine River, Cumberland River). ★★**
- 14. Work with Surf Coast Shire to implement Anglesea River and Painkalac Creek Estuary Management Plans. ★★★**

5.2 Goal 2: Protect and conserve cultural values

Indigenous cultural heritage

This section was prepared with the consultation and assistance of the Wathaurong Aboriginal Cooperative and the Framlingham Aboriginal Trust.

Background information

The Great Ocean Road Coast Committee manages land in the traditional country of the Wathaurong and Gadubanud people.

The Wathaurong occupied the Geelong area and associated coastline. The Wathaurong were composed of at least 25 clans responsible for specific tracts of land within Wathaurong country. The Wathaurong belonged to an affiliation of Aboriginal people known as the Kulin Nation and shared strong cultural and economic ties with the four other Kulin peoples in, north and east of what is now Melbourne.

Very little is known about the Gadubanud traditional owners of the Otway Ranges. Their population declined quickly due to disease and violence (in particular a massacre event at Cape Otway). Numerous archaeological sites showed they occupied both the coast and the densely forested hinterland.

The coastal zone is a place of traditional importance to Indigenous communities as a source of resources, and as an important part of the stories of the creation of the landscape. A consequence of traditional use of the coast is the relatively high concentration of Aboriginal archaeological sites along the coastal zone. The Kooyang Sea Country Plan (part of which covers the study area near Lorne) describes the value of the coast to contemporary Aboriginal communities:

When we talk about our country we include the ocean, our sea country that provides so much of the resources we still depend upon for our wellbeing, and which covers the submerged lands that bear the footprints of our ancestors (Kooyang Sea Country Plan: page 4).

Archaeological sites are highly significant to Indigenous people today, providing a tangible link with history and ancestors.

Legislative obligations

Aboriginal cultural heritage legislation in the State of Victoria is currently in a state of transition. The *Aboriginal Heritage Act 2006* has been passed by the Parliament of Victoria but is not expected to come into operation until early 2007. Until this time, Aboriginal cultural heritage will continue to be protected by two pieces of legislation, one State and one Commonwealth.

Cultural heritage

Aboriginal cultural heritage in Victoria is currently protected by two pieces of legislation: the *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic) and the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth). Together these acts provide protection for Aboriginal objects and places and provide for the mandatory reporting of archaeological sites. The Commonwealth Act prohibits anyone from defacing, damaging or otherwise interfering with an Aboriginal place unless the prior consent of the local Aboriginal community has been obtained in writing. In the area of land managed by the Great Ocean Road Coast Committee, the two local Aboriginal communities are the Framlingham Aboriginal Trust (west of Lorne) and the Wathaurong Aboriginal Co-operative (east of Lorne). The boundary between the two communities is the Deans Marsh – Lorne Road.

The new *Aboriginal Heritage Act 2006* (Vic) has been passed by the Parliament of Victoria and is anticipated to commence operation in early 2007. It will replace the dual State / Commonwealth system currently in operation. The Act provides blanket protection for Aboriginal cultural heritage and it will be an offence to disturb Aboriginal cultural heritage without obtaining a Cultural Heritage Permit. Changes that may impact on the Great Ocean Road Coast Committee could include a requirement to undertake Cultural Heritage Management Plans prior to undertaking certain activities and changes in the structure of Aboriginal representation.

Native Title

Under the Native Title Act, native title must be considered when undertaking work on crown land or waters that may affect native title. There are currently no native title claims within the GORCC management area, although future claims are possible. Information about native title can be obtained from the National Native Title Tribunal (www.nntt.gov.au).

Issues

Indigenous cultural values are primarily represented by archaeological sites (particularly middens). Archaeological sites are under potential threat of damage or destruction from both natural and cultural processes. In terms of the latter, it is probable that users of GORCC land are unaware that crossing dunes away from the designated paths may damage heritage places. The lack of archaeological surveys undertaken in GORCC managed land means that the full extent of Indigenous cultural heritage resources is unknown. It is recognised that neither GORCC, the Wathaurong Co-operative or the Framlingham trust have the resources to undertake extensive archaeological investigation of the area.

With these constraints in mind, the key to managing Indigenous cultural values is based on the following action areas:

- Providing cultural awareness training to GORCC land managers
- Ensuring consistent and open communication between GORCC, Wathaurong and Framlingham
- Investigating site stabilisation and protection options
- Providing interpretation of Indigenous cultural heritage

Management principles

Cultural heritage awareness training

High archaeological potential of the coastal strip means that works involving ground disturbance have the potential to disturb an Aboriginal object or place. The lack of archaeological survey undertaken in the area makes it difficult to predict with any certainty whether or not works are likely to disturb sites. GORCC coastal managers should receive cultural heritage awareness training from the Wathaurong and / or Framlingham Aboriginal Co-operatives. This training should include cultural appreciation, the identification of archaeological places and objects and legislative requirements for recording and managing archaeological places and objects.

Cultural heritage awareness training will raise awareness of the importance of Indigenous cultural heritage and enable GORCC managers to plan for and monitor their own works effectively. Cultural heritage awareness training must follow the principles of open communication outlined below.

Open communication

The Wathaurong Aboriginal Co-operative and the Framlingham Aboriginal Trust rely on GORCC to inform them of any activities that will involve ground disturbance in order that they can make appropriate management decisions. In the past, some management works have been undertaken which have disturbed archaeological sites without a prior archaeological survey having been undertaken. It is recognised that under current management arrangements this no longer happens and it is important to ensure that effective management arrangements remain in place.

GORCC should routinely inform Wathaurong or Framlingham by telephone in advance of *any* works that may involve ground disturbance and seek advice as to whether a monitor should be present. The Co-operative may choose in certain cases not to provide a site monitor, or to delegate this to appropriately trained GORCC staff (refer to cultural heritage awareness training above). GORCC land managers must routinely and immediately inform the Wathaurong or Framlingham Aboriginal Co-operatives upon the discovery of previously unidentified archaeological places or objects.

GORCC should discuss the development of a Memorandum of Understanding (MoU) with Wathaurong and Framlingham communities. The MOU would comprise an agreement as to which GORCC activities would require input from the Indigenous community and outline mutual rights and responsibilities. An MOU would also assist in identifying what types of works may require prior archaeological survey and assist GORCC in planning / budgeting accordingly. An excellent example is the MOU signed

between the Corangamite CMA, Framlingham Aboriginal Trust, Wathaurong Aboriginal Co-operative and Ballarat and District Aboriginal Co-operative (see Volume 3).

The terms of the MOU might include:

- Risk management (physical management of sites)
- Identifying areas requiring archaeological survey
- Protocols for communication
- Identifying activities which may / may not require GORCC to inform Indigenous stakeholders
- Identifying opportunities to involve the Wathaurong and Framlingham Aboriginal communities (e.g. through employment monitoring ground disturbance etc).

Investigate site stabilisation and protection measures

Midden sites such as those located at Point Impossible and Point Roadknight are under pressure from natural erosion and recreational use of the coastal environment. Middens (like all archaeological places or objects) are of great significance to the Indigenous owners and some (such as those at Point Impossible) are considered of high scientific significance to the archaeological community. These sites are an important tangible link to the Indigenous history of the area and should be protected.

GORCC should commission a report from a suitably qualified professional on methods for protecting coastal sites. The report should address issues such as potential pressures on sites, sites requiring priority stabilisation, possible mitigation measures (e.g.: limiting access, stabilizing with geotextile etc) and ongoing management needs.

Specific recommendations for case study sites at Point Impossible and Point Roadknight are as follows:

Point Impossible

- GORCC should contact the Wathaurong Aboriginal Co-operative prior to undertaking any works involving ground disturbance at Point Impossible. Information about the proposed works and a copy of these recommendations should be forwarded to the Wathaurong Co-operative to allow them to determine whether or not a Wathaurong representative will be required to monitor works.
- Access from the carpark to the beach should be confined to existing steps, walkways and infrastructure. Construction away from existing infrastructure should be avoided. Should construction away from existing infrastructure be required, care should be taken to minimise the footprint and excavation area.
- Access to dunes away from the carpark and steps should be limited. Measures taken at the Point Impossible car park to keep people and vehicles off the edge of the dune system and direct human traffic onto the steps provided are considered successful and should be maintained.

Point Roadknight

The Point Roadknight midden appears to be potentially extensive and may extend across the entire surface of the Point. An examination of the midden indicates that it is under threat from natural erosion and movement of the dunes (particularly on the southern side) and pedestrian traffic. The following management recommendations were made by Mr David Tournier of the Wathaurong Aboriginal Co-operative during a visit on site:

- Adequate fencing should be maintained to encourage pedestrian traffic to remain on the designated path. Particular efforts should be made to minimise pedestrian access to the dunes across the dune blow out on the southern side of Point Roadknight.
- Signage should be placed prominently on the fences on the north and south side of the dune and on the pedestrian access track indicating that Point Roadknight is an area of cultural sensitivity to Indigenous people and requesting people to remain on the designated paths. The wording of this sign should be determined by the Wathaurong Co-operative.

- Site stabilisation options for the site should be investigated. This would require specialist archaeological input.

Interpretation plan and strategy

The Great Ocean Road has a rich Indigenous heritage; however there is a lack of interpretation surrounding Indigenous culture and heritage. Many visitors to the Great Ocean Road will be aware of its natural values but unaware of its high cultural values. Appropriate interpretation has the potential to enhance the tourist experience and add a new dimension of meaning to the landscape. Interpretation for GORCC managed land must balance the need to raise awareness with the need to protect archaeological sites. A coordinated interpretation plan for the coast is desirable, involving GORCC, Parks Victoria and Surf Coast Shire (section 5.5).

Future directions (Indigenous cultural heritage)

- *Work cooperatively with local Indigenous organisations to ensure involvement in planning, management and interpretation of Indigenous sites.*
- *Encourage increased knowledge of Indigenous values and protection of sites.*

Goal 2 Management actions (Indigenous cultural heritage)

15. Arrange cultural awareness training for appropriate GORCC staff, with Wathaurong Aboriginal Co-operative and the Framlingham Aboriginal Trust. ★★★

16. Discuss the development of a Memorandum of Understanding with Wathaurong and Framlingham and develop and implement procedures to notify the Local Aboriginal Community of proposed site works involving ground disturbance and arrange site inspections where appropriate. ★★★

17. Commission a study of Indigenous site stabilisation needs, methods and management needs and undertake high priority works. ★★

Non-Indigenous cultural heritage

Background information

Preparation of these management recommendations and preliminary assessment of significance of potential non-indigenous heritage places within GORCC-managed areas has been carried out with reference to the *Surf Coast Heritage Study – Stage 1*, Context Pty Ltd, 1998, Vol. 2 – *Inventory of Places* and Vol. 3 - *Environmental History*, and the Heritage Overlay maps of the Surf Coast Planning Scheme.

Discussions with the Surf Coast Shire Council established that work is ongoing on Stage 2 heritage studies following on from the recommendations of the Stage 1 Heritage Study. As a result of these Stage 2 studies, three places within GORCC-managed areas are now listed on the Surf Coast Shire Planning Scheme (all of them in Lorne).

The *Environmental History of the Surf Coast Shire* (1998) provides a valuable thematic framework within which to understand the historical development of the Surf Coast area. This framework has assisted in the identification of non-Indigenous cultural heritage features which strongly embody and demonstrate well the historic themes identified in the 1998 heritage study, and has informed preliminary assessment of their heritage significance.

A number of historic themes drawn from the *Environmental History* emerged as particularly important in the study area (as a whole and as individual places), these are:

- *The Natural Environment* – Sub-themes: ‘South-West Riviera of Victoria’; Community appreciation; Conservation issues
- *Arrival and Settlement* – Sub-themes: Explorers, surveyors and settlers; Pre-emptive right properties

- *Economic Development in the Shire* – Sub-themes: The timber industry; Fishing; Primary production
- *Transport and Communications* – Sub-themes: Country Roads Board; Great Ocean Road; Forest Tramways; Coastal shipping
- *Towns* – Sub-theme: Coastal towns
- *Governing the Shire* – Sub-theme: Defence
- *Holidaying at Surf Coast*—Sub-themes: Recreational pursuits; Beauty spots; Walking tracks; Guest houses; Foreshore reserves; Camping grounds and caravan parks; Surfing

Places of local heritage significance and local interest were identified on site visits by Natica Schmeder, Heritage Consultant, Context, on 19 May and 3 June 2006. On-site assistance was provided by Chris Barr (of the Torquay Historical Society) and Doug Stirling (of the Lorne Historical Society). Doug Stirling's book, *Lorne: A Living History*, provided further background information for Lorne sites. These sites, their location, and associated historical themes are described in the Context report on heritage (volume 3).

Legislative obligations

Local significance

GORCC's management area in Lorne contains three places covered by the Heritage Overlay of the Surf Coast Shire Planning Scheme. They are the Graves of Lindsay Children (Splitter's



Swing Bridge at Lorne

Children's Grave) – HO68, the Swing Bridge – HO67, and the

Mountjoy Parade Heritage Area including a Moreton Bay Fig and remnant Blue Gums on the foreshore – HO77. GORCC's obligations under the heritage overlay are detailed in section 43.01 of the Planning Scheme. The purpose of the heritage overlay is, among others, to conserve and enhance heritage places of cultural significance and those elements which contribute to their significance, and ensure that development does not adversely affect the significance of these places.

A permit is required for most external works to a heritage place and its site apart from regular maintenance (permit requirements and exemptions are detailed in the Heritage Overlay attachment). In general, a permit is not required to repaint a heritage place or remove and prune trees. There are, however, specific controls over two of the heritage places in Lorne: 1) a permit is required to paint the Splitter's Children's Graves (HO68); and a permit is required to remove, destroy, prune or lop any trees of a height over 3 metres within the Mountjoy Parade heritage precinct (HO77).

State significance

All non-Aboriginal archaeological sites in Victoria older than 50 years are protected under the Heritage Act 1995, whether or not they are recorded by Heritage Victoria. If a site is uncovered in the course of a building project, it is an offence to knowingly damage, disturb or excavate without obtaining the appropriate consent to alter or damage from the Executive Director of the Heritage Council of Victoria. Two non-indigenous archaeological sites of over 50 years old were identified whose locations are still clearly apparent above ground. They are both in Lorne: the Slaughterhouse site and the Timber Tramway cutting, both in Queens Park.

All shipwrecks over 75 years old and/or registered individually by Heritage Victoria are protected under Victoria's Heritage Act 1995 and the Commonwealth Historic Shipwrecks Act 1976. Heritage Victoria must be contacted for any permits for shipwrecks which involve disturbance to the remains. If a previously unknown shipwreck is located in GORCC-managed waters, Heritage Victoria should be notified.

GORCC's management area contains coastal reserves with offshore boundaries of up to 600 metres from the shore at Jan Juc, Anglesea and Lorne, so their management responsibilities extend to any shipwrecks located with these areas. Peter Harvey of Heritage Victoria has provided information indicating that the following shipwrecks,

registered by Heritage Victoria, are, or are believed to be, located within waters managed by GORCC (all of them in Lorne): 1) S508 *Osprey* is located just off the Lorne Foreshore; 2) S510 *Otway* is believed to lie within the GORCC-managed area off Lorne; 3) S566 *Rebel* was wrecked at the Erskine River mouth, but was refloated, so has probably not left any remains; 4) S317 *Henry* and S26 *Anne* have not been located but are likely to be in GORCC-managed waters off Lorne; 5) only a small proportion of shipwrecks off the coast of Victoria have been located, so more may be discovered in the GORCC-managed waters at a future date.

Issues

For the purposes of management recommendations those places deemed to be of local significance have been classified into general groups, including: places on the Heritage Overlay; Shipwrecks, Graves and Archaeological sites – which are all protected by Heritage Victoria; Structures; Moveable items and monuments; Trees and other vegetation; and Places with long-standing continuity of use. A final group are those places of ‘local interest’, which appear to fall under the threshold for local significance, but which add to the character and understanding of local history of their sites.

A number of potential threats to non-indigenous heritage places were ascertained on the site visits and in conversation with local residents. They can be summarised as follows: 1) Unsympathetic alterations and extensions to heritage structures; 2) Deferred maintenance of heritage structures, resulting in deterioration of the fabric; 3) Demolition of heritage structures or removal of moveable items and monuments; 4) Moving monuments from their present location; 5) Replacement of trees at the end of their life-span; 6) Insensitive redevelopment of archaeological sites; and 7) Termination of a long-standing and continuous use of a heritage place.

The need for urgent repair work was identified at two sites: Teddy’s Lookout shelter (rafter ends rotting), and Queens Park Caravan Park Entrance Lodge (severe rotting of logs at the base).

Overall management and interpretation of cultural heritage sites in the study area should be in accordance with principles set out in the Australia ICOMOS Charter for Places of Cultural Significance (the ‘Burra Charter’). This charter has been widely adopted by heritage and conservation agencies across Australia.

Future directions (non-Indigenous heritage)

- *Recognise the importance of non-Indigenous heritage sites to local communities (although none apart from shipwrecks are currently rated of State significance) and manage to protect these values.*
- *Follow the principles for management and interpretation set out in the Australia ICOMOS Charter for Places of Cultural Significance (the ‘Burra Charter’). Consider sympathetic re-use in accordance with the Burra Charter.*
- *Encourage further investigation and interpretation of local heritage.*

Place-types

a) Places on the Heritage Overlay

- Lorne: Graves of Lindsay Children (Splitter’s Children’s Grave) – HO68; the Swing Bridge – HO67; and the Mountjoy Parade Heritage Area including a Moreton Bay Fig and remnant Blue Gums on the foreshore – HO77

b) Shipwrecks

- Lorne: S508 *Osprey*, S510 *Otway*, S566 *Rebel* (wrecked and refloated), and possibly S317 *Henry* and S26 *Anne*.

c) Archaeological sites and graves of local (or greater) heritage significance

- Lorne: Slaughterhouse site and the Timber Tramway cutting, both in Queens Park.

d) *Structures of local heritage significance*

- Torquay: Machine-gun bunker at Point Impossible (photo right).
- Lorne: 1930s foreshore pool kiosk, Queens Park Caravan Park buildings of the late 1930s (Spotters' Quarters/Recreation Hall, Entrance Lodge, Utility Shed), Teddy's Lookout shelter, Lorne Aquatic Centre (former Gracedale Guesthouse lounge) at Point Grey, and Cumberland River Holiday Park Picnic Hut of 1934..



e) *Moveable items and monuments of local heritage significance*

- Torquay: two anchors from the *Scammel*, Long Memorial, Fishermen's winch on Fishermen's Beach, Taylor Park gates, ANZAC Memorial cenotaph on Point Danger.
- Anglesea: anchor from the *Inverloch* at Point Roadknight.
- Lorne: War memorial on Mountjoy Parade,.

f) *Trees and other vegetation of local heritage significance*

These trees and other vegetation of potential local heritage significance include:

- Torquay: Foreshore planting of Norfolk Island Pines (*Araucaria heterophylla*) (photo right), Torquay Caravan Park pines, Point Danger Monterey Cypresses.
- Anglesea: Mature cypresses on Split Point (Note: these trees are senescing).
- Lorne: Pines to the north of the mouth of the Erskine River, 1934 foreshore Cypress Avenue planting, mature Cypresses around the public swimming pool, Norfolk Island Pines (*Araucaria heterophylla*) and Moreton Bay Fig trees (*Ficus macrophylla*) on foreshore, Norfolk Island Pines and mature Cypresses on Point Grey and at the Cumberland River.



g) *Places with continuity of use of local heritage significance*

There are a number of sites where the fabric of the existing structures is not of heritage significance. Instead, their value lies with a long-standing and continued use of the site linked to important themes in the Surf Coast's history. Such ongoing uses also bring strength of association of people with this part of the coast (e.g. recreation locations, caravan parks) which can itself be of heritage significance.

These places can be divided into several groups: surf life saving clubs and camping grounds/caravan parks and scenic lookouts (all linked to the Holidaying on the Surf Coast theme), and fishing industry sites (linked to the Economic Development in the Shire theme). A final site at Steps Beach is linked to the Arrival and Settlement theme.

- Torquay: Torquay SLSC, Jan Juc SLSC, Torquay Caravan Park.
- Anglesea: Anglesea SLSC, Anglesea Caravan Park.
- Aireys Inlet: Steps down to Steps Beach.
- Lorne: Lorne SLSC, Queens Park Caravan Park, Cumberland River Holiday Park, Teddy's Lookout, Lorne Pier (and crane),, Lorne Fishermen's Co-op.

h) *Places of local interest*

There are a number of structures within GORCC-managed areas that do not appear to meet the threshold for local significance. However, they are linked

to important historical themes in the Surf Coast's history and provide evidence of the area's evolution and development.

- Torquay: Torquay Caravan Park Kiosk.
- Anglesea: Anglesea Caravan Park Laundry and Camp Kitchen, Point Roadknight Kiosk.
- Lorne: Lillian Beaurepaire Pool on the Foreshore, possible former Bathing Box at the pool.

Future directions/guidelines (non Indigenous cultural heritage)

For items of (probable or documented) local or State heritage significance:

- *Retain and preserve the fabric of these items, particularly fabric of heritage significance.*
- *Avoid unsympathetic changes (including alterations, additions, demolition, etc) that diminish the heritage significance of the place.*
- *Retain these items in an appropriate setting and retain views to them. Consult the community if any changes or moves in location are planned.*
- *Consider interpretation of these items where it is not currently provided. The key stories to be interpreted should be developed in consultation with the community (section 5.5).*

For items on the Heritage Overlay:

- *Consult the Surf Coast Shire heritage advisor if any changes are planned to the place.*

For shipwrecks, graves and archaeological sites protected under the Victorian Heritage Act 1995:

- *Obtain a permit or consent from Heritage Victoria for any disturbance or alteration to shipwreck remains, graves or archaeological sites.*
- *Retain above-ground evidence of archaeological sites and interpret if public access is developed.*

For trees and vegetation of local heritage significance:

- *Trees and other vegetation identified as being of cultural heritage significance in their own right should be retained and conserved.*
- *Significant trees and other vegetation should be managed in accordance with horticultural best practice to ensure their health and vigour is not compromised. The costs of maintenance of over-mature trees is to be balanced against other management priorities.*
- *As a general rule, and recognising that the soft landscape elements are dynamic, replacement of significant trees and vegetation should adopt a like with like approach, wherever compatible with other conservation objectives (refer to specific notes in Volume 2).*
- *Retain and interpret other introduced exotic, native and indigenous vegetation which contributes to an understanding of the overall cultural landscape values of the Great Ocean Road and Surf Coast Shire, insofar as this vegetation provides evidence of the key periods defining the evolution of the place.*

Tree replacement guidelines

Where exact replacement species are no longer available or the principle of like with like conflicts with other values of greater significance (i.e., natural significance), or other statutory constraints relevant to the local area, selection of appropriate replacement species should consider the following:

- Cultural heritage and aesthetic goals: the replacement species should be of similar form, appearance, origin (exotic/native), and endeavour to retain landmark characteristics (specimen or beachfront planting), colour contrasts (i.e., the characteristic dark, evergreen headland planting en masse of the Anzac Memorial park, Point Danger) or other aesthetic values as relevant.
- Functional goals: the replacement species should provide similar shade (deciduous), shelter (windbreak), definition of boundaries, as relevant.
- Biological: plant selection should be based on suitability and tolerances to existing environmental characteristics of the site (including soil, high wind, and high salt environments). Species with identified or potential weed characteristics should be avoided.

For places with a long-standing continuous use of heritage significance (both where the fabric itself is or is not of heritage significance):

- *Encourage continuation of the significant historic use of the sites.*
- *Allow the introduction of new facilities to continue the significant historic use, where appropriate.*
- *The siting of new facilities should not have any adverse impact on significant vegetation.*
- *New facilities should have good contemporary design. Their siting and design should not overwhelm the historic setting of any significant buildings or the site as a whole by becoming a dominant element or by interfering with key views to and from the site.*

For places of local heritage interest:

- *Retain and maintain places of local interest where practicable. Undertake further investigation of history and significance if alteration, extension or demolition is proposed.*

Goal 2 Management actions (non-Indigenous cultural heritage)

18. Adopt the principles for management of non-Indigenous cultural heritage places set out in this plan and apply in site planning and management.

ONGOING

19. Monitor the condition of, and threats to, significant non-Indigenous cultural heritage places and take timely action to minimise loss of heritage values.

★★★

20. Carry out urgent repairs to deteriorating fabric of locally significant structures: Teddy's Lookout shelter (rafters), and Queens Park Caravan Park Entrance Lodge (log structure). ★★★

21. Explore the potential to conserve, reinstate and interpret the Lorne Pier crane on, or as close as possible to, the Pier. ★

22. Prepare a Conservation Management Plan for the group of c1930s rustic-style structures in Lorne (on the Foreshore, in Queens Park Caravan Park, and the Cumberland River Holiday Park). ★★

5.3 Goal 3: Ensure recreation and development minimise impacts on landscape and associated natural values

Background information

Coastal reserves provide for a significant range of recreational and development uses and facilities. Whilst detailed recreation and development planning is outside the scope of this plan, it is important to consider how best to minimise the impacts of recreation and development on landscape and natural values.

Landscapes values

The values of landscapes (and associated geomorphological features) along the Torquay to Lorne coast have been established in several studies and are supported by field observations undertaken for this plan. Those parts of the study area viewed from the Great Ocean Road are of especially high sensitivity given the high visitation and significance of this road nationally and internationally.

In a 2003 study, the coast south-west from Torquay was rated as of State significance, with Lorne (to Marengo) rated as of National significance (section 3.4). A recent study of Australia's major natural landscapes identified the Great Ocean Road (Torquay to Apollo Bay) as one of the seven most inspirational landscapes in Victoria (RCA 2005). An earlier study of the Victorian coast (VCC 1998) noted the ... 'spectacular driving experience on the Great Ocean Road ...' which includes the section from Anglesea to Lorne.

Community studies, e.g. those undertaken by Green at Torquay/Jan Juc, Aireys Inlet/Eastern View and Lorne (2003a, 2003b, 2002), have shown clearly that local communities value natural landscapes and vegetation. They also strongly prefer any buildings to be of small scale set in well vegetated settings, to maintain local character. Green found that there is a high correlation between the aesthetic landscape value of indigenous vegetation, and the environmental value of that vegetation, i.e. indigenous vegetation rated very highly for aesthetic value (2003b).

Lothian (2006), in a study of community attitudes to coastal landscapes in South Australia, found that highly valued coastal landscapes rated high for diversity, 'tranquillity-awe', naturalness and area of water. He also demonstrated that buildings (added digitally to projected photographs) consistently reduced the rating of all types of coastal landscapes assessed. Lothian proposed limiting development and maintaining natural character and scenic quality in high rating sites.



Contrasting views: Fairhaven area from the Great Ocean Road; Aireys Inlet from the Surf Coast Walk

Landscape character

The experience of the landscape of the study area is one of journeys (either by car or on foot), punctuated by particular locations of longer duration (e.g. parking areas, lookouts, recreation locations).

An overview site investigation for this study allowed the identification of local features and attributes of particular importance. The study area was divided into twelve landscape units in order to understand the key features and characteristics and to develop objectives for what to retain, enhance and avoid across the study area. These landscape character units are described in appendix 4.

The Great Ocean Road provides travellers with panoramic coastal views at several locations overlooking GORCC-managed land including Point Roadknight lookout, Fairhaven to Eastern View, and Lorne. A much richer experience is available to those who leave the main road and explore lookout points, coastal tracks and beaches. High value landscape features and views are listed in table 6.

Table 6: Key landscape features

Management Area	Landscape features/views
A Torquay-Jan Juc Coastal Reserve	Pt Impossible to Whites Beach coast, views to and from Pt Danger, views to and from Rocky Point, views along Surf Coast Walk from Jan Juc to Bird Rock
B Anglesea Coastal Reserve	Views from Surf Coast Walk at North Anglesea and near Surf Club, Pt Roadknight lookout, views along beaches
C Aireys Inlet-Moggs Creek Coastal Reserve	Cliff views from Surf Coast Walk near lighthouse, views of estuary, views along beaches from Aireys Inlet to Eastern View
D Lorne Coastal Reserve	Views from North Lorne, town and Scotchmans Hill across Bay. Views in and from Queens Park, and along Erskine River and Stony Creek. Views of river escarpments at Cumberland River

Appreciation of landscape and geomorphological values is supported by interpretive signs at several sites, e.g. near Bird Rock, and in self-guided brochures such as *Discover the Aireys Inlet Cliff Walk*. Opportunities exist for additional interpretation.

Landscape threats and opportunities

A wide range of building, infrastructure and recreational facilities and activities can adversely affect landscape values. These can occur on land managed by GORCC, on adjacent public land managed by other agencies including the Surf Coast Shire, Parks Victoria and VicRoads, or on private land.

It is also important to recognise that well planned and sensitively designed developments can complement landscape values and contribute positively to recreation experiences, eg low-impact walking tracks, viewing points, toilets, boating and eco-tourism facilities, and redevelopment of high value precincts. Buildings with a strong relationship to the coast, e.g. lighthouses and piers, are often regarded as positive components of coastal landscapes.

Several selected sites on GORCC land are proposed to demonstrate good coastal design and development - and to increase community awareness and involvement in coastal projects. These sites will become models for future GORCC coastal projects.

a) Threats and opportunities on GORCC land include:

- Damage to soils, vegetation and visual amenity resulting from inappropriate access.

Examples include numerous dunes, parking areas, and cliff tops where fencing is inadequate, and coastal access tracks located on erodible soils, or in inappropriate locations. Regulating public access using vehicle barriers, fencing, signs and track closures has been undertaken in many areas and needs to be upgraded and extended to additional areas. High priority should be given to areas with high landscape (and natural) values. Provision of adequate fencing in coastal areas is difficult due to sand loss and build up, but can be achieved with ongoing maintenance and associated community education programs.

- Unsympathetic buildings, facilities, and signs which intrude on views and vegetation, particularly in areas with high landscape and natural values.

Examples include some toilets, e.g. near Anglesea Surf Club, foreshore buildings at Fairhaven and near Lorne Pier, and exposed parking areas, e.g. at Point Roadknight and near the optional dress beach north of Torquay. Opportunities were identified to progressively amalgamate or relocate buildings to less intrusive locations and reduce the visual impact of existing and redesign parking areas with more vegetation cover and improved surfaces and drainage.

An environmental effects assessment is desirable for any future developments on GORCC land which could threaten environmental values.

- Uncoordinated design and siting of furniture, signs, fences, bollards etc.

A design manual with specifications for appropriate robust furniture, barriers, signs etc would provide for long-term coordination across GORCC areas, and be complementary with design principles used by Parks Victoria and Surf Coast Shire.

- Inadequate development and maintenance of landscape settings and associated facilities.

Revegetation and landscaping works sometimes fail because of inadequate site preparation, herbicide damage to non-target species, soil compaction, inadequate weed control, rabbit grazing, advanced planting stock, low planting densities, excessive mulching where natural regeneration could have occurred, and planting next to invasive species such as Kikuyu. Areas can also have an untidy appearance where plant guards and stakes have been left on-site for long periods (volume 2 sec 5.3).

Important viewing points vary in quality with some developments of a high standard, e.g. Point Danger (except for some planting strategies), Rocky Point, Bird Rock and Scotchmans Hill.

- Weed invasion, e.g. in caravan parks where exotic shrubs and trees have displaced indigenous species, and in natural areas such as Queens Park.

Revegetation programs in caravan parks are proposed (section 5.1).

b) Threats on other public land include:

- Excessive and uncoordinated signs, electricity poles and overhead wires, unpainted barriers and ill defined roadside parking along the Great Ocean Road from Anglesea to Lorne.

GORCC will need to continue to liaise with VicRoads and the Shire to reduce the impact of signs, services and structures along the Great Ocean Road, particularly from Anglesea to Lorne.

- Ill defined and poorly maintained parking areas, e.g. overlooking Painkalac Creek inlet, and at Fairhaven (not GORCC responsibilities).

Liaison with the Shire regarding priorities may assist.

c) Threats on private land include:

- Buildings near coastal reserves which are bulky, dominating, and lack vegetative screening – particularly indigenous tree and shrub species (see Green 2004).

These include buildings which intrude on key coastal views, e.g. along the coast from Fairhaven to Eastern View and along sections of the Surf Coast Walk. This is outside the control of GORCC, but strong advocacy related to protecting coastal landscape values is important. The Shire may work with landowners to reduce impacts in the long-term, e.g. by changing to colours which blend with local settings. Planting of indigenous vegetation on adjacent Crown land to reduce the impacts of houses on coastal landscapes could also be undertaken by the Shire and GORCC, e.g. near parts of Torquay and Jan Juc.

- Encroachment of invasive woody weeds from properties adjoining coastal reserves, e.g. near Jan Juc, leading to changes in landscape character.

Ongoing liaison by GORCC, or changes to Shire regulations may assist in reducing this threat to natural and landscape values.

Dealing with threats

The Victorian Coastal Strategy has identified the importance of protecting coastal landscapes in any development with the objective: *“To ensure that any future built form is sensitively located, ecologically sound and respects visually sensitive landscapes so that loss of habitat, loss of amenity and potential erosion is minimised”*.

Landscape character objectives for twelve landscape units of the study area are set out in appendix 4.

In addition, guidelines and directions are available in:

- *Great Ocean Road Landscape Assessment Study;*
- *Siting and Design Guidelines for Structures on the Victorian Coast;* and
- *Surf Coast Planning Scheme Landscape Unit Strategies (cl 21.06-2)*

Conservation of natural environments and views of natural features was given a high priority in the local work by Green. Residents wanted any development to ‘fit in’ with the landscape. Preferred developments are ... “*screened by vegetation, are in warm, earthy, muted and natural colours that appear to blend with their surroundings, have well designed landscapes using indigenous plants, have retained natural bush during construction ... and are generally small in scale in terms of both height and mass.*” (Green 2004)

Major landscape units are identified in the Surf Coast Planning Scheme and protected to some degree by overlays, although at present the Significant Landscape Overlays primarily apply to private land adjoining the GORCC reserves.

Development on private land outside the coastal reserves is largely the responsibility of Surf Coast Shire, with referral input by DSE and other agencies. Actions by municipalities, including Surf Coast Shire, have also been identified in municipal ‘toolkits’ developed by Planisphere in the GORRLAS Landscape Character Assessment (2003). These included strengthening Planning Schemes and undertaking staff training. Community education initiatives are discussed separately in section 5.5. Where impacts are likely to occur on GORCC managed land, DSE can argue for protection of significant values with GORCC actively supporting the case.

The State Government’s Coastal Spaces Recommendations (DSE 2006) also include restricting urban development to existing settlements, protecting non-urban coastal landscapes, and developing a Levels of Service framework to guide investment and management.

Where impacts are likely to occur on GORCC managed land, GORCC should lobby DSE to advocate for protection of significant values with GORCC actively supporting the case.

Future directions

- *Give high priority to conserving and promoting environmental values in the planning and development of recreation facilities.*
- *Include effective environmental protection and enhancement works in all on-ground management programs.*
- *In partnership with other agencies, reduce the impacts on landscape values of development in/adjacent to GORCC coastal reserves.*

Goal 3 Management actions

- 23. Close and rehabilitate surplus tracks, review parking locations and upgrade fencing and signs to minimise damage to soils and vegetation, particularly near sensitive habitats, lookouts and beach access points. ★★★★★ to ★★**
- 24. Minimise signage clutter by combining / clustering signage where possible, siting on the landward side of roads and lookouts where possible, and using low heights appropriate to the surrounding landscape and vegetation. ONGOING**
- 25. Implement siting and design guidelines compatible to minimise visual intrusions into the reserves and progressively rehabilitate, remove or ameliorate existing intrusions. Combine facilities in unobtrusive locations where possible. ONGOING**
- 26. Develop design manual with specifications for furniture, facilities, signage etc in conjunction with Surf Coast Shire, DSE and Parks Victoria). ★★**
- 27. Improve landscaping development and maintenance activities by adopting practices which maximise establishment and survival of appropriate indigenous species with minimal ongoing maintenance. ONGOING**

28. Undertake a formal environmental effects assessment before proceeding with new major development activities. **ONGOING**
29. Demonstrate high quality landscape design, coastal management, development and protection at six priority sites. Promote to increase community awareness and involvement:
- *Torquay: Develop and implement master plan to redevelop boat ramp/club area at Fishermans beach (access, facilities, parking, revegetation, rehabilitation, interpretation). ★★★*
 - *Anglesea: Implement master plan to upgrade Point Roadknight precinct (revegetation, rehabilitation, parking, signs, access, and interpretation). ★★★*
 - *Aireys Inlet: Implement walking track proposal near Painkalac Creek (weed control, revegetation, track construction, interpretation). ★★★*
 - *Eastern View: Implement Great Ocean Road Arch precinct upgrade with Shire, Friends of Moggs Creek, Friends of Fairhaven, VicRoads and Parks Victoria (weed control, revegetation, relocate parking, underground power, provide toilet, improve beach access, revise interpretation). ★★★*
 - *Lorne: Upgrade walk and enhance adjacent land from SLSC to Point Grey (revegetation, track improvements, interpretation, art, Point Grey redevelopment). ★★★*
 - *Cumberland River: Undertake rehabilitation (removal of invasive weeds and revegetation with indigenous species, entry upgrade and interpretation). ★★★*
30. Maintain high quality viewing opportunities for visitors with associated environmental improvements, at Point Impossible, Fishermans Beach, Point Danger, Rocky Point, Jan Juc, Bird Rock, Point Roadknight, Aireys Inlet, Fairhaven, Eastern View, Scotchmans Hill, Lorne Pier and Queens Park. **ONGOING**
31. Advocate for appropriate land management and planning decisions in adjacent areas: Work with adjacent landowners and Surf Coast Shire to reduce or minimise the impacts of adjacent development and exotic vegetation on reserve landscapes; liaise with DSE, Surf Coast Shire and other relevant agencies to minimise impacts of planning applications, infrastructure and maintenance works on reserve landscapes. **ONGOING**

5.4 Goal 4: Ensure coordinated and sustainable management of coastal land

Background information

This section discusses responsibilities for the management of coastal public land, sustainable management opportunities and climate change issues.

The community workshops held during the project (section 3.6) identified support for:

- Increased coastal management skills, close cooperation between GORCC and the Shire, and increased involvement of the Shire in coastal management.
- Sustainable management, and improved stormwater management and reduction in waterway pollution.

These actions are supported in this plan.

▪ **Management responsibilities and skills**

Responsibility for planning and management of coastal public land in Victoria is complex, with many organisations involved (Victorian Coastal Strategy 2002, p9). Key land managers in the Surf Coast area are:

- GORCC
- DSE
- Parks Victoria
- Surf Coast Shire

Other agencies with significant roles in planning or management include the Western Coastal Board, Corangamite Catchment Management Authority, VicRoads and Marine Safety Victoria.

Close cooperation between these organisations is essential if the coast is to be managed soundly and significant values protected. GORCC has considerable capability in coastal management but sharing of experiences with other managers, and skills training, will help achieve continuous improvement.

In some parts of Surf Coast Shire, management boundaries are complex and do not relate to natural systems (or to recreational use). Examples include Painkalac Creek and Anglesea River estuaries. Simplification is desirable, with GORCC or Surf Coast Shire responsible for managing defined land units. Other areas requiring review include Taylor Park at Torquay (which is arguably municipal open space), bushland areas along Erskine River and Stony Creek at Lorne, and possibly Split Point Lighthouse and Bells Beach Coastal Reserve. Clarification and rationalisation of responsibilities for management and enforcement for marine areas is also desirable.

Regulations relating to dogs on beaches also need review in conjunction with Surf Coast Shire to ensure appropriate controls are in place for all Surf Coast Beaches. Linked to this is consideration of education, enforcement and dog dropping bins, and coordination with other land managers eg Parks Victoria.

Risk management is not discussed in detail in this plan but is recognised as an important role of GORCC.

Broad management requirements and proposed future directions for coastal management are summarised in table 7.

Table 7: Broad management requirements and future directions for GORCC

Management requirement	Future directions for GORCC
<ul style="list-style-type: none"> Clear responsibility for logical land management units 	<ul style="list-style-type: none"> Revised land management responsibilities, including marine areas, based on ecological units. Responsibility for areas functioning primarily as open space for local residents rationalised with Surf Coast Shire.
<ul style="list-style-type: none"> Up to date knowledge of natural, cultural and landscape values and threats (within the context of the whole catchment and adjacent marine areas) 	<ul style="list-style-type: none"> Information included in this plan expanded, including external impacts, e.g. stream flows and stormwater.
<ul style="list-style-type: none"> Appropriate risk management 	<ul style="list-style-type: none"> Risk management plan developed and implemented for all coastal reserves. Emergency response arrangements included.
<ul style="list-style-type: none"> Skills in environmental and land management 	<ul style="list-style-type: none"> Staff skills in environmental management expanded.
<ul style="list-style-type: none"> Adequate resources for management 	<ul style="list-style-type: none"> Adequate revenue and grant funding allocated to environmental management.
<ul style="list-style-type: none"> Organisational capability and commitment to sound land management 	<ul style="list-style-type: none"> Strong skill base for the committee, and effective leadership and coordination by the Executive Officer and Coast Manager. Environmental management given very high priority in business planning.
<ul style="list-style-type: none"> Partnerships with other land and marine area managers and cooperation between agencies 	<ul style="list-style-type: none"> Regular meetings with adjacent coastal managers to review performance and identify new partnership opportunities.
<ul style="list-style-type: none"> Involvement of the community 	<ul style="list-style-type: none"> Ongoing involvement of local communities (including Indigenous communities) in planning and management. Strong support for activities of Friends and other volunteer groups, in partnership with other land managers and programs. Ongoing participation in the Shire's environmental committees. Regular reporting to local communities.

- **Sustainable management**

Sustainability is an overused term, but the long-term protection of coastal values will require a concerted and ongoing effort by coastal managers. As a major manager of caravan parks and intensively used day visitor areas, GORCC has an important role to play, with management and recreational use of its areas involving significant use of energy, potable water and non-recyclable materials.

A broad state-wide overview of sustainable management is provided in *Our Environment Our Future* (DSE 2005). Many municipalities and agencies have developed local strategies which are relevant to GORCC. Surf Coast Shire has proposed initiatives in its Environmental Strategy (SCS 2006).

Sustainable water use issues and opportunities are discussed in the *Draft Sustainable Water Strategy: Central Region* (DSE 2006). Opportunities relevant to GORCC include reduced water use in visitor facilities, particularly showers, toilets and laundries, increased collection and use of rainwater, and minimal watering of recreation areas.

Other important issues include the impacts of extraction and cartage of gravel used in track construction, and the use of cypress pine (harvested non-sustainably in NSW) as bollards, posts etc.

Current sustainability issues and proposed future directions are outlined in table 8 below. See sections 5.1 to 5.3 for information on sustainable management of natural, cultural and landscape values.

Table 8: Sustainability issues and future directions for GORCC

Sustainability issue	Future directions for GORCC
<ul style="list-style-type: none"> ▪ Energy use in facilities, infrastructure, maintenance and equipment. 	<ul style="list-style-type: none"> ▪ Auditing of energy use, particularly in caravan parks. ▪ Reduced energy use. ▪ Purchasing policy favouring energy efficient and durable materials, equipment and vehicles.
<ul style="list-style-type: none"> ▪ Vehicle use and Greenhouse gas emissions 	<ul style="list-style-type: none"> ▪ Recreation opportunities maximised in each coastal reserve, and walking, cycling and other local activities increased. Visitor use of vehicles discouraged through education, and parking fees near the foreshore.
<ul style="list-style-type: none"> ▪ Use of water in reserves 	<ul style="list-style-type: none"> ▪ Reduced water use through adoption of conservation technologies.
<ul style="list-style-type: none"> ▪ Recycling/sustainable materials 	<ul style="list-style-type: none"> ▪ Preference given to recycled or recyclable and durable materials, where practicable, in new works. ▪ Visitors responsible for recycling/disposal of waste (most bins removed).
<ul style="list-style-type: none"> ▪ Protection of water quality 	<ul style="list-style-type: none"> ▪ Sewage and sullage treatment at caravan parks and other facilities upgraded/maintained to high standard. ▪ Water sensitive design principles followed in any new developments or upgrades.
<ul style="list-style-type: none"> ▪ Community education and action 	<ul style="list-style-type: none"> ▪ Energy, water saving and recycling facilities and techniques interpreted as models for visitors to adopt 'at home'.

▪ **Climate change**

Recognition of the cause and likely impacts of climate change is increasing rapidly. See for example reports on www.greenhouse.gov.au, and papers at the *Coast to Coast 2006* Conference (www.vcc.vic.gov.au). Probable impacts over time include increased storm events, tidal surges, rising sea levels, increasing temperatures and reduced rainfall.

A recent study for the far west coast of Victoria rated waterways and wetlands as extremely vulnerable, water resources and biodiversity as highly vulnerable, and coasts and infrastructure as of low vulnerability to 2030. The study proposed further assessments, reducing demand for water, and community engagement (SKM 2005).

These results are likely to be broadly applicable to GORCC's foreshore reserves but further investigations are needed to identify probable impacts in more detail. A key focus will be to identify and monitor areas of foreshore at risk of possible sea level rise and other impacts.

GORCC can play an active role in reducing greenhouse gases resulting from electricity consumption and vehicle use - key contributors to climate change.

Future directions

- *Rationalise management responsibilities for coastal land in Surf Coast Shire.*
- *Increase environmental management capability and performance in GORCC.*
- *Foster partnerships to improve environmental management of the coast.*
- *Phase in and promote more sustainable management practices in caravan parks and foreshore areas.*
- *Support studies into climate change and monitor areas of foreshore at risk.*

Goal 4 Management actions

32. *Review land management responsibilities and negotiate with Surf Coast Shire and DSE to rationalise GORCC boundaries. Include consideration of Shire foreshore land north of Deep Creek and near Aireys Inlet Lighthouse, Taylor Park and all estuaries. ★★★*
33. *Provide strong leadership and effective management of GORCC areas, increase staff skills and progressively add to environmental knowledge. Consider training courses, staff exchanges, e.g. with Barwon Coast CoM, and recruitment of staff with specialist skills. ONGOING*
34. *Meet regularly, e.g. bi-annually, with other key agencies to review the implementation of strategic plans, opportunities for cooperation, and new issues. ONGOING*
35. *Arrange environmental audits of caravan parks and other GORCC facilities to quantify opportunities to reduce use of energy, potable water and non-recyclable materials, and identify sustainable purchasing policies. ★★★*
36. *Install more efficient lighting and heating, increased insulation and low-energy design for all new structures, and solar water heating at least in new buildings ★★★*
37. *Fit water efficient shower roses (with timers) and washing machines, self-closing taps and minimum flush toilets in all facilities. Consider waterless urinals. ★★★*
38. *Use rainwater tanks and associated plumbing (where practicable) e.g. for toilet and laundry use in all foreshore facilities, and irrigating intensive recreation areas. ★★★*
39. *Plant only indigenous species (which have low water requirements), with the exception of plantings in formal areas. Use drought resistant grasses in intensive recreation areas.) ONGOING*
40. *Ensure effective recycling facilities in caravan parks and visitor areas with barbecues. In liaison with Shire, remove rubbish bins from other areas (with appropriate 'recycling' signs) except on major walking paths where dog dropping bins may be appropriate. ★★★*
41. *Assess the environmental impacts of using natural materials in construction. Consider alternatives, e.g. bitumen instead of gravel on paths. Phase out use of cypress pine in favour of materials having lower environmental impacts. ★★★*
42. *Ensure good water quality and conservation of water by following water sensitive urban design principles in conjunction with Surf Coast Shire. ONGOING*
43. *Promote sustainable practices by developing and interpreting sustainable practices in caravan parks and recreational areas. ★★*
44. *In conjunction with the Western Coastal Board and other coastal agencies, support studies into the potential impacts of climate change on biodiversity and infrastructure on the west coast. ★★★*
45. *Identify and monitor areas of foreshore at risk of sea level rise or other impacts of climate change. ★★★*

5.5 Goal 5: Increase community involvement and appreciation

Background information

This plan focuses on the sound management of natural and cultural values in the coastal reserves managed by GORCC. It does not include detailed actions to promote recreational use of the reserves but does include activities to encourage community involvement with environmental protection and increase community appreciation. Strong community commitment to high quality environmental management will provide significant support for GORCC in seeking project grants and embarking on joint projects.

The community workshops conducted for this plan favoured increased support for community groups, increased involvement of schools in coastal management/monitoring, and enhanced interpretation. This will be a challenging task – many volunteer groups attract only small numbers of active members, and interpretive signs and programs are now commonplace in many parks and reserves across Australia.

• *Increasing community involvement*

A range of community groups, including ANGAIR, Coast Action groups, several Friends groups, LorneCare and others, provide invaluable assistance with management of the foreshore and many volunteers have participated in weed removal, planting days and other activities. Coast Action Coast Care programs have also made a major contribution to community appreciation of coastal values and threats, and on-ground environmental projects (Coast Action Strategy 2004-2010, DSE).

Ongoing weed removal and revegetation work at locations such as Torquay, Jan Juc-Bells Beach, Aireys Inlet, Moggs Creek and Lorne has been particularly valuable. Heritage groups also take a keen interest in the coast and are an important source of information on cultural heritage (section 5.2)



Volunteers removing Coast Tea-tree near Moggs Creek (left) and undertaking revegetation on degraded land at Jan Juc(right) (courtesy Marg McDonald and Ian Edwards)

Increased community support is desirable to assist GORCC to manage all areas to a high standard. The Coast Action Coastcare program has supported many coastal environmental projects. Surf Coast Shire Council also assists a range of volunteer groups involved in environmental management and GORCC could become more involved, e.g. by providing details of environmental groups on its website, actively promoting membership, coordinating activities, facilitating workshops on techniques (including weekend sessions for part-time residents), and providing increased operational support. The principles set out in this plan for vegetation management should be used as the framework for volunteer activities.

Increasing community understanding of the threat posed by environmental weeds growing on private land is also important, to help reduce this problem.

There are opportunities to build on existing involvement by local primary and secondary schools, and school groups staying in foreshore caravan park, e.g. in weed removal, planting and monitoring of conditions.

Working bees and planting days could be promoted in association with activities on special days such as World Environment Day, and schools encouraged to adopt a small section of foreshore.

The community has been actively involved in developing the actions in this plan. GORCC can continue to include local communities by providing regular updates on coastal issues and activities, and including consultation in future planning projects.

Demonstration projects in readily assessable areas are a valuable way of promoting good design and management practices and encouraging increased community understanding and involvement in the coast. Selected projects were identified in the planning process and are discussed in section 5.3.

A coastal achievements award program is also proposed to publicly recognise individuals and groups who have made a contribution to improved management of GORCC's coastal reserves.

- **Increasing appreciation**

Heritage is more than the places and objects themselves. Most important are the stories that our heritage can tell. Victoria's heritage offers a way into the past, a chance to experience how other people lived, their values, their hopes and aspirations, and their tragedies and triumphs. (Victoria's Heritage 2010, Heritage Council, 2004).

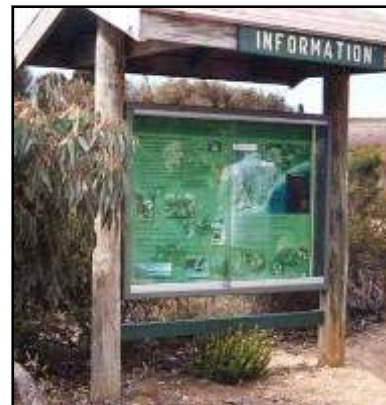
Information and interpretation materials and activities are frequently used to increase community awareness and appreciation of natural and cultural values. The aim is to develop a deeper understanding of these values, leading to increased personal commitment to preservation and conservation.

While good face to face interpretation is often regarded as the most effective method of communication, it is also expensive and time consuming for coastal managers. Coast Action Coast Care activity programs have, however, used face to face activities successfully. For GORCC, a range of opportunities was identified which can build on existing activities and services (see also section 5.2).

Information activities and materials include websites, leaflets, maps, signs, media releases, promotional activities, e.g. regarding environmental projects, and presentations to residents and campers.

Interpretive opportunities include on-site signs and shelters, self-guided trails and summer activity programs, in cooperation with existing programs, e.g. Coast Action. A travelling exhibition and/or display caravan could be located at a range of venues, e.g. caravan parks and foreshores to promote good coastal management.

There is currently a wide range of interpretive signs and shelters in GORCC areas, with some more successful than others. There are opportunities to review all interpretive materials, develop clear themes and messages, and progressively phase out signs and displays which have deteriorated. Some existing signs lack clear themes, have poor legibility and are excessively wordy. Very useful guidance on interpretation and interpretive signs is available at www.interpretivesigns.qut.edu.au. Interpretive signs are best located at sites with interesting stories to tell, preferably in popular areas where large numbers of residents and visitors are likely to read them. Consistent graphics and GORCC identification are desirable.



Quality interpretive display, Anglesea heathland area

The Surfing World museum in Torquay provides interesting interpretation of the growth of the surfing culture in the area and associated lifestyles. A proposed discovery centre near the river in Anglesea, if built, could provide a popular venue for interpreting environmental values of the Great Ocean Road coast, and associated recreation and tourism activities. The new information centre in Lorne could also provide interpretive displays on natural and cultural heritage.

With the pending development of information and interpretive materials for the new Great Otway National Park, opportunities for coordinated services should be pursued where the GORCC reserves are close to the national park (and to coastal land managed by Surf Coast Shire). Parks Victoria will be developing a management plan, including interpretation strategies, by 2007. An Interim Management Guide to Visitor Services

was prepared by Parks Victoria in 2006 and an Information, Interpretation and Education Strategy will also be prepared.

Potential broad themes for interpretation include the following. These are derived from the Australian Historic Themes framework (Australian Heritage Commission, 2001).

- Living as Australia's first inhabitants (2.1)
- Catering for tourists (3.23)
- Preparing to face invasion (7.7.1) (already interpreted at Torquay)
- Enjoying the natural environment (8.1.4)
- Going to the beach (8.2)
- Going on holiday (8.3)
- Living in the country and rural settlements (8.14)

Of these, stories related to Indigenous life, appreciating the natural environment and holidaying at and enjoying the coast appear to be most appropriate.

But there is a very pressing need for GORCC to align community education and interpretation programs with management priorities. The key need is to increase community understanding of environmental values and threats, and increase community commitment to, and involvement in, environmental management – building on the example set by existing volunteer groups and environmental programs such as Coast Action. The main target audiences are therefore people who may become involved in volunteer activities – primarily local residents and caravan park users. Day visitors are a low priority audience.

Successful interpretation is often closely associated with good site planning and management and it is desirable to consider interpretation opportunities at the start of any site development task and, where appropriate, closely integrate interpretive and site planning.

An overall interpretation plan for the coast from Point Impossible to Lorne - developed jointly by GORCC, the Shire and Parks Victoria - would provide a framework with relevant themes and messages and creative materials and activities to engage target audiences at key sites.

Future directions

- *Give high priority to increasing volunteer involvement in coastal management, in conjunction with Surf Coast Shire and Coast Action Coast Care.*
- *Plan, develop and promote demonstration sites as a mechanism to increase community involvement.*
- *Focus information, interpretation and education services on opportunities for the community to assist in environmental management.*
- *Consider interpretation and education opportunities at the preliminary planning/design stage for all major projects.*

Goal 5 Management actions

- 46. Substantially expand and coordinate volunteer group environmental activities, in conjunction with Surf Coast Shire and Coast Action Coast Care programs. Include promotional campaigns and regular meetings to develop skills, seek funding, and foster, coordinate and monitor agreed research and works programs linked to this plan. ★★★★★**
- 47. Liaise with local schools and visiting education groups to encourage more active involvement in locally-relevant environmental projects on GORCC land. ★★**
- 48. Provide regular information on GORCC activities for local communities and caravan park users, including regular briefings on key issues and initiatives and annual newsletters distributed in caravan parks and other outlets. ★★★★★**
- 49. Educate local landholders, land managers and lessees to inform them of the importance of control and prevention of environmental weed invasion. ★★★★★**

50. In conjunction with Parks Victoria and Surf Coast Shire, review all interpretive materials and activities, adopt clear themes and messages, and develop a plan to progressively upgrade information, signs and information displays, and promote community involvement in environmental activities. Focus on sites with high values related to key messages, and demonstration sites selected to demonstrate good coastal design and management (section 5.3). ★★★

51. Establish an annual coastal achievement awards program to promote individuals, groups and organisations helping to manage coastal reserves. ★★★

