Apollo Bay Structure Plan

Volume 1

Adopted on 26 April 2007

Acknowledgements

Project Steering Committee

A Project Steering Committee (PSC) was formed to oversee the preparation of the Structure Plan and to provide direction on the project. Members of the PSC include:

- **Colac Otway Shire**:
  - Cr Stuart Hart, Otway Ward Councillor
  - Cr Joe Di Cecco, Otway Ward Councillor
  - Tracey Slatter, Chief Executive Officer
  - Kelly Grigsby, General Manager Environment & Planning (until Nov 2006)
  - Jack Green, General Manager Sustainable Planning & Development (after Nov 2006)
  - Cressi Golding, Economic Development Manager
  - Peter Marshall, Special Projects Coordinator
- **Department of Sustainability and Environment:**
  - Geoff Forbes
- **Community Representatives:**
  - Gary McPike
  - Jacinta Bourke
  - Wayne Kennedy
  - Gerry Tidd.

Council Project Managers

Kelly Grigsby

Jeff Morgan

Chris Marshall

Jack Green

Contents

How the Structure Plan report is organised

This volume of the report (**Volume 1**) contains the Structure Plan for Apollo Bay, Marengo and Skenes Creek, with objectives and strategies for each of the identified themes. Details of how the Structure Plan should be implemented are also included.

An Action Plan is included in the Appendix to this report, detailing how the strategies should be implemented.

Volume 2: Background Report contains background information and analysis, including the outcomes of community consultation, the strategic context for the development of the Structure Plan, and the demographic and development trends for the study area. Volume 2 should be referred to for further detailed information regarding analysis and research, and links with State government and other strategy.

Executive Summary

The Colac Otway Shire commenced the preparation of a Structure Plan for Apollo Bay, Marengo, Skenes Creek and the areas immediately surrounding and in between these townships in May 2005. Although largely completed in mid 2006, finalisation of the Plan was delayed by other parallel processes, in particular the Planning Panel processes for the large Great Ocean Green development to the south of Apollo Bay and determination of the water capacity of the area. The Plan was completed in early 2007 following advice from Barwon Water regarding the likely location and capacity of a future water storage facility.

A Structure Plan is a document that guides major change to land use, built form, access and public space while protecting and enhancing valued aspects of the area. Apollo Bay has been designated as an area for growth by the State Government and is already experiencing pressure for development, so it is important to have a clear strategic direction for how and where this new development should take place over the next 20 years.

For Apollo Bay, Marengo and Skenes Creek, the Structure Plan also provides an opportunity to identify community needs and aspirations, and to balance these against the demand for increased growth and levels of activity, to provide greater certainty to investors, Council and the community. The objectives and strategies contained in the Plan are based on feedback received through community consultation carried out late in 2005, as well as ongoing input from the Project Steering Committee, which includes community representatives. The Plan is also based on extensive independent analysis and research undertaken by the consultants.

Over the next 20 years, the township of Apollo Bay and the nearby settlements of Marengo and Skenes Creek will experience significant change.

Key principles have emerged from the feedback received from the community, on how to manage and shape this change and work towards a collective vision for the settlements.

Guiding Principles for the Structure Plan

The following principles have guided the preparation of the Structure Plan, and future proposals should be measured against them to ensure that a positive contribution will be made to realising a vision for the area.

- Apollo Bay, Marengo and Skenes Creek should remain as distinct coastal settlements, each with a separate identity and local character.
- The natural beauty of the area, with its unspoilt beaches set against a dramatic backdrop of rolling hills, provides the overarching character which unites the settlements, and should be reflected in new development.
- The seaside fishing village character of Apollo Bay, focussed around a robust working harbour, is highly valued and this character should be preserved and strengthened by new development.
- Change should take place in a way that sets Apollo Bay, Marengo and Skenes Creek apart from other settlements by a demonstrated commitment to healthy lifestyles and ecological sustainability, and a responsiveness to the natural environment.
- The settlements should continue to provide for high quality living, offering improved community facilities and services, as well as economic development opportunities, for a self-sustaining lifestyle.

Key Objectives

The following objectives are identified in the Structure Plan. The Structure Plan contains detailed discussion and recommendations on actions to achieve each of the objectives.

A. Landscape Setting & Environment

- *Maintain the 'green breaks' and landscape dominance between the settlements to ensure that each settlement remains distinct.*
- *Protect the Otway foothills as a scenic, undeveloped backdrop to Apollo Bay, Marengo and Skenes Creek.*
- *Recognise and protect ecological values and avoid development in areas at risk from the effects of flooding, wildfire, acid sulfate soil disturbance, erosion, landslip and salinity.*
- *Reinforce and enhance the identity and the sense of arrival and departure at the entrances to Apollo Bay, Marengo and Skenes Creek.*
- *Improve the appearance and amenity of the foreshore reserve in Apollo Bay and reduce the impact of the existing and future structures on the naturalness of the setting.*
- *Achieve improved visual and physical links between the Apollo Bay town centre and the beach, better manage weed species and increase indigenous vegetation on the dunes.*
- *Protect and enhance the significant views and vistas available from the settlements, the beach and the harbour, as well as the views available from key vantage points in the hills above the Study Area.*

B. The Size of the Settlements

- *Utilise natural boundaries, where appropriate, to define settlement edges and set limits to urban expansion.*
- *Define and maintain a hard edge to the urban area of each of the three settlements, particularly when viewed from the Great Ocean Road.*
- *Ensure that urban development results in the efficient utilisation of existing infrastructure and minimises the requirements for new infrastructure.*
- *Encourage infill development of medium density housing and accommodation within walking distance of the commercial area of Apollo Bay, to reduce the pressure to expand the urban area, and provide alternative housing choice.*
- *Facilitate non-urban form tourism accommodation development on land between Pisces Holiday Park and Wild Dog Creek, outside the coastal settlement boundary.*

C. Settlement Character and Form

- *Consolidate the town centre of Apollo Bay and provide a greater diversity of housing and accommodation at higher densities within and in close proximity to the commercial area.*
- *In the residential areas outside the town centre of Apollo Bay, limit building heights and ensure upper levels are well articulated to respect the character of the area.*
- *Require new development and streetscape works in the Apollo Bay town centre to build on and reinforce the fishing village coastal character of the township, and contribute to the creation of a vibrant public realm.*
- *Reinforce and improve the informal character, accessibility and amenity of streetscapes in the residential areas of Apollo Bay, Marengo and Skenes Creek, reflecting the distinct existing and preferred future character of each settlement in new improvements.*
- *Achieve excellent architectural quality in new development or improvements to existing buildings in the town centre of Apollo Bay, drawing on the existing valued qualities of the centre and setting a new direction in the use of innovative, high quality design.*
- *Promote Apollo Bay, Skenes Creek and Marengo as leaders in environmental sustainability within the Great Ocean Road Region and improve the ecological integrity of environmental features within and around the settlements.*

D. Activities: Business, Tourism, Community & Recreation

- *Intensify commercial and business land uses within the commercial area of Apollo Bay and ensure a future supply of Business Zoned land to meet demand.*
- *Develop the port vicinity with a tourism, fishing, boating, commercial and recreational focus strengthening links to the town centre of Apollo Bay and providing net community benefits.*
- *Ensure continued and improved air access to the region.*
- *Encourage future recreation facilities to be located together with other community facilities in a central and accessible location.*
- *Ensure that community, health, education and recreation facilities are provided to meet the needs of current and projected future residents and visitors to the area.*
- *Support the growth of tourism as a major employer for the region.*

- *Provide for future industrial development while minimising offsite impacts on surrounding residential uses, the environment (particularly local waterways) and views from residential areas and the Great Ocean Road.*

E. Access

- *Strengthen the pedestrian and cyclist connections between Marengo, Apollo Bay and Skenes Creek.*
- *Create a highly walkable town centre in Apollo Bay with safe and convenient access to the shops, community facilities and recreational activities.*
- *Manage the orderly flow of traffic at all times of the year and enhance pedestrian safety and movement.*
- *Ensure the future parking needs of Apollo Bay are met and parking congestion in the Great Ocean Road is minimised.*
- *Support, promote and improve public transport.*

Implementation and Action Plan

Implementation of the Structure Plan will include both statutory and non-statutory mechanisms. Statutory implementation of the Structure Plan will be via amendments to the Colac Otway Planning Scheme, in particular the introduction of new sections for Apollo Bay, Marengo and Skenes Creek into the Municipal Strategic Statement to incorporate the relevant objectives and strategies. A series of zone, overlay and Local Planning Policy changes are also recommended to implement the Neighbourhood Character Study following its finalisation in line with the Structure Plan.

An Action Plan details how objectives and strategies should be implemented, the responsibility within Council for implementation, any external partners who could assist in implementation, and the broad timeframes and priorities for implementation.

Monitoring and Review

The achievement of the objectives and strategies of the Structure Plan should be monitored on an annual basis, with a review of the Structure Plan to take place every 5 years. The 5 yearly review should ensure that the objectives and strategies are up to date and reflect new and emerging planning policy and issues, to ensure that the Structure Plan remains a flexible and relevant planning instrument while at the same time providing certainty about the future development of the area to the community and Council.

1. About the Study

In mid 2005 the Colac Otway Shire engaged a study team led by planning consultants Planisphere to prepare a Structure Plan for Apollo Bay and the surrounding hinterland, including the settlements of Marengo and Skenes Creek. Transport and infrastructure assistance was provided by Maunsell Australia Pty Ltd, and demographic and land supply assistance was provided by Urban Enterprise.

The purpose of the study has been to set the strategic direction for the settlements and surrounds, and to guide future growth and change over the next 20 years. The Plan will be reviewed every 5 years.

Apollo Bay has been designated as a key growth area by the Victorian Government, and is already experiencing pressure for large scale residential subdivision and development. Accommodating this projected growth in a sustainable way while protecting what is valued about the area will be the critical challenges to be addressed through the implementation of the Structure Plan.

The Structure Plan identifies guiding principles to managing change in the study area, and sets out objectives and strategies, grouped under 5 key themes, that will be progressively implemented by Council, State Government and the private sector to achieve a collective vision for the area.

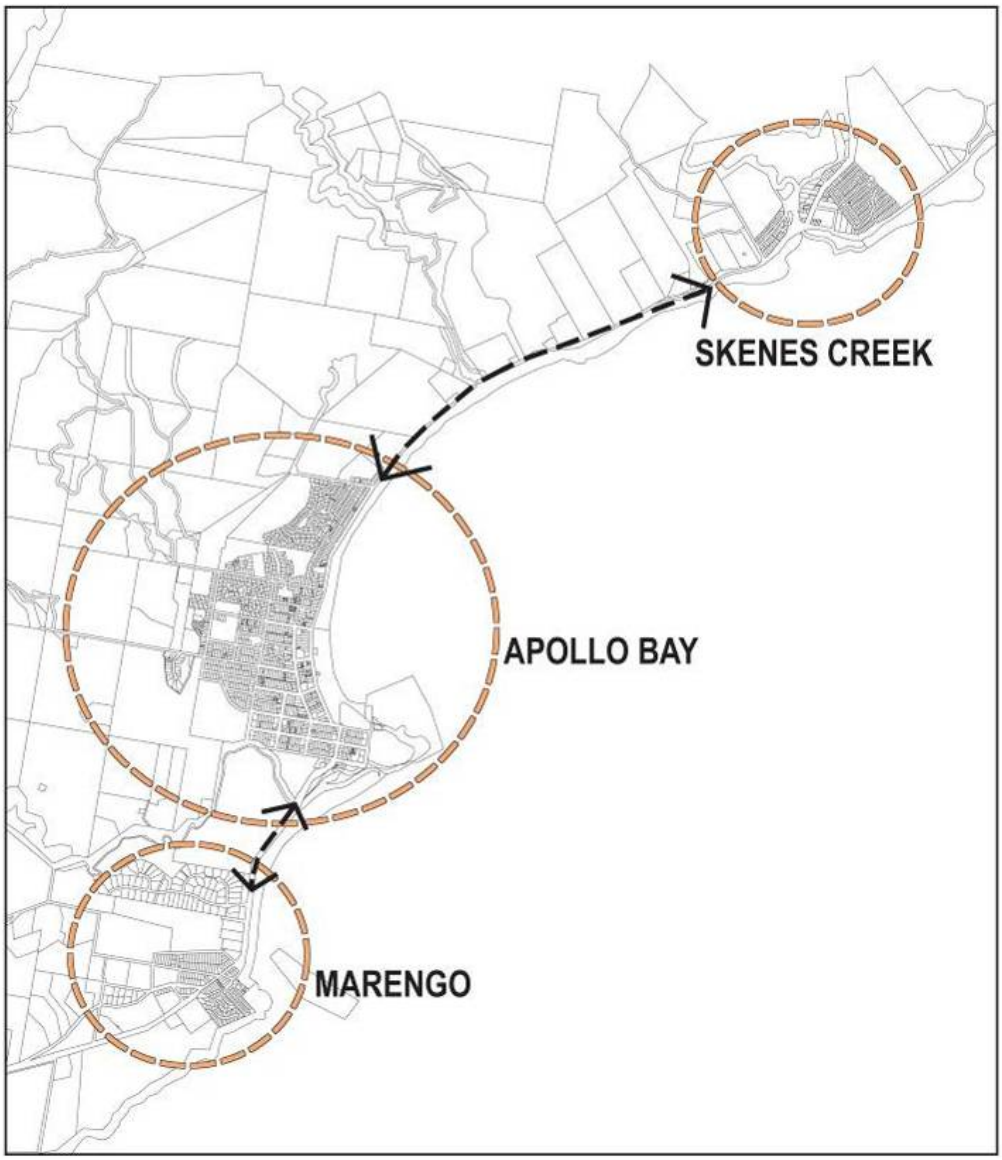
The Structure Plan addresses important issues for Apollo Bay, Marengo and Skenes Creek including preserving the fishing village character and promoting a vibrant town centre in Apollo Bay, protecting the natural environment and the idyllic views and vistas, defining physical limits to urban expansion and height limits for new development, increasing the ecological sustainability of new development, ensuring efficient use and adequate provision of physical infrastructure, improving accessibility, and defining principles for the redevelopment of the working harbour and Point Bunbury. Through setting clear direction, the Structure Plan is able to provide greater certainty to the community, to developers and to Council.

As the Structure Plan has a 20 year time span, the changes proposed in the plan will take place incrementally, with some occurring in the short term and others taking the full life of the plan to come to fruition. Monitoring success and reviewing and updating the Structure Plan to take these changes into account will be important throughout the life of the Plan, to ensure that it remains a responsive and flexible planning tool.

Study Area

The Study Area for the Apollo Bay Structure Plan includes the township of Apollo Bay, the settlements of Marengo and Skenes Creek, the area between these settlements and the foothills of the Otway Ranges that rise sharply beyond. See a map of the Study Area below:

COLAC OTWAY APOLLO BAY STRUCTURE PLAN
STUDY AREA



Study Process

The main stages for the preparation of the Structure Plan were:

1. Analysis
2. *Consultation A: Apollo Bay and Melbourne*
3. Issues & Opportunities
4. Draft Structure Plan
5. *Consultation B: Apollo Bay Open Days*
6. Final Structure Plan and Implementation and Action Plan

Community Consultation

The draft Structure Plan was prepared with considerable community input, provided through two workshops (one in Apollo Bay and one in Melbourne), the completion of questionnaires, and a photographic survey of the study area. Three Bulletins were published during the course of the study to inform residents and land owners of the opportunities to contribute and of the general study progress. After the completion of the draft Structure Plan, a further round of consultation was carried out, involving distribution of a summary brochure of the Structure Plan, availability of the Structure Plan on the Council website and at Council offices in Apollo Bay and Colac, and two public information sessions held in Apollo Bay during the day and in the evening.

Consultation A:

Community Workshops: Apollo Bay and Melbourne

Two evening workshops were held in October, 2005 for interested community members and others to attend, with approximately 47 people attending the workshop in Apollo Bay and 35-40 people attending the workshop in Melbourne. Discussion in the workshops was focussed on key questions relating to challenges needing to be addressed, features to be protected and strengthened, opportunities to improve the area and changes needed.

Questionnaires

A questionnaire was distributed to households with Community Bulletin No. 1, again seeking qualitative responses to key questions concerning the future of the area. Over 110 completed questionnaires were returned.

Disposable Camera Exercise

Seven volunteers from the Apollo Bay Community Workshop completed a survey of the study area, taking photographs and making comments about aspects of the area they liked, disliked, and noting good examples of recent development.

Project Steering Committee (PSC)

The PSC was formed in November 2005 to provide representation of community interests and with participation from Council officers and a representative of the Department of Sustainability and Environment. The PSC provided important input during the process of preparing the Structure Plan, both during PSC meetings and in the form of written comments on issues and opportunities and on drafts of the Structure Plan.

Consultation B: Draft Structure Plan

Community consultation on the Draft Structure Plan was carried out between late January and early March 2006, and involved two public information sessions (Open Days), during which Council staff and project team members were available to explain the Structure Plan, answer questions, and provide guidance about how to make a submission. These sessions were well attended by the community, with a range of views expressed to consultants and Council officers. The exhibition period closed on 6 March 2006, and during this time 422 submissions were received.

Of the submissions received, 216 were pro forma submissions (comprising 8 different pro forma letters), with the remaining 206 being individual submissions including both written letters and completed feedback forms.

Due to the high number of submissions received and the parallel planning process for Amendment C29 (Great Ocean Green Panel hearing), a Recommended Changes Report was prepared which detailed the feedback received, the response to submissions and the changes recommended to be made to the Structure Plan to address comments where appropriate. This report was considered by Council in May 2006 and the changes endorsed as recommended, with the additional action that 'officers further investigate the extension of the town boundary to Wild Dog Creek as part of the finalisation of the plan.'

A detailed summary of the outcomes of Consultation A and B can be found in Volume 2: Background Report.

2. Guiding Principles for the Structure Plan

Over the next 20 years, the township of Apollo Bay and the nearby settlements of Marengo and Skenes Creek will experience significant change.

Key principles have emerged from the feedback received so far from the community, on how to manage and shape this change and work towards a collective vision for the settlements.

- Apollo Bay, Marengo and Skenes Creek should remain as distinct coastal settlements, each with a separate identity and local character.
- The natural beauty of the area, with its unspoilt beaches set against a dramatic backdrop of rolling hills, provides the overarching character which unites the settlements, and should be reflected in new development.
- The seaside fishing village character of Apollo Bay, focussed around a robust working harbour, is highly valued and this character should be preserved and strengthened by new development.
- Change should take place in a way that sets Apollo Bay, Marengo and Skenes Creek apart from other settlements by a demonstrated commitment to healthy lifestyles and ecological sustainability, and a responsiveness to the natural environment.
- The settlements should continue to provide for high quality living, offering improved community facilities and services, as well as economic development opportunities, for a self-sustaining lifestyle.

These Principles have guided the preparation of the Structure Plan, and future proposals should be measured against them to ensure that a positive contribution will be made to realising a vision for the area.

3. Outstanding Issues

During the finalisation of the Structure Plan, the relevant water authority, Barwon Water, advised that due to insufficient water storage capacity the authority was unable to currently commit to servicing further growth of the town. Further work undertaken by Barwon Water has determined that the only available site for future location of a 250 megalitre off-stream water storage facility is on land within the 'Great Ocean Green' development proposal site. Establishment of this facility will obviously require additional study, design, negotiation and resolution, prior to construction. At the time of writing, Barwon Water is seeking a meeting with the proponents of the development to explore "*whether there are any potential opportunities to construct the required water storage whilst meting objectives of their proposal*." The advice continues that, "…*in relation to finalising the Apollo Bay Structure Plan, Barwon Water repeats the advice that it is not in a position to provide water supply to any additional rezoned residential land until such time as a new water storage has been constructed*."

Given the uncertainty of future water supply and the amount of growth it will be able to support, no further rezoning of land should be approved outside existing urban zoned areas. Once there is certainty in relation to the ability to provide water storage to service urban growth, rezoning applications may again be considered within areas designated in the Structure Plan for future urban growth, with adequate strategic justification to be provided. The level of growth will need to be determined subject to future availability of water storage combined with appropriate water conservation measures, which need to be determined in collaboration with Barwon Water.

The Structure Plan has been amended to clarify that future growth will be subject to the availability of water, and have regard to the currently unknown impact of the proposed water storage facility on the Great Ocean Green development capacity. The Structure Plan has, however, been written assuming that a 250 megalitre storage facility will become available at some time within the timeframe of the Plan. Should the eventual outcome of Barwon Water's discussions and investigations be that no further water storage facility is available within the foreseeable future, then we suggest that a revision of the Structure Plan will be required to curtail growth in all forms in the township.

As a result of this uncertainty there are a number of different scenarios for the growth of Apollo Bay. These scenarios are discussed in detail in Theme B. Size of the Settlements, under *Growth Scenarios*.

Water is discussed in further detail in Theme B. Size of the Settlements, under *Capacity of Existing Infrastructure*.

4. Themes

A. Landscape Setting & Environment

The landscape setting of Apollo Bay, Marengo and Skenes Creek features the intersection of several elements including the ocean, the Otway foothills, and the Barham River Valley floodplain. The Great Ocean Road Region Landscape Assessment Study (GORRLAS)[1], that underpins many of the recommendations of the Great Ocean Road Region Strategy describes the landscape of Precinct 2.4 within which this area is located as being:

…characterised by a backdrop of tall, steep rugged hills, at the foot of which is gently rolling land, sloping down to the coast. The wide sandy beach at Apollo Bay curves around to Wild Dog Creek, with grassy dunes and low bluffs behind. The hills that encase the precinct are predominantly cleared with some remnant shrubby foothill and riparian forest vegetation. Numerous rivers and creeks incise the hills and run to the bay, which is vegetated with remnant coastal heathland scrub. This largely open, cleared precinct is surrounded by dense, wet eucalypt forest, providing a stark character contrast.

The study identifies this landscape as Nationally Significant, which is due, in part, to the intersection of landscape elements, visibility and accessibility from the Great Ocean Road, and high visitation. It also recommends further protection through the application of a Significant Landscape Overlay to most of this area outside of the settlement boundaries.

The ecological values of the areas both within the townships but particularly in the surrounding area (e.g. floodplain, creeks, Marengo Flora Reserve, Marengo Forest, foothills etc.) also need to be recognised, particularly as these values are often less visually apparent but contribute significantly to the long term viability of the local environment and the landscape significance of the area.

Development between the settlements

A characteristic shared by many settlements along the coast of Victoria is their separation from other settlements by the natural landscape. Skenes Creek is separated from Apollo Bay by the Otway foothills and Apollo Bay is separated from Marengo by flat, cleared land in the Barham River floodplain. The separation of urban areas also adds to the perception that the towns are contained within the landscape, which is an important component of each settlement's identity.

The Great Ocean Road Region Landscape Assessment Study, identifies a number of Issues and Priority Areas for this Precinct[2], including:

- *"Township edges and development between towns is a key issue*
- *Residential development encroaching up hill faces outside townships also a key issue*

[1] Great Ocean Road Region Landscape Assessment Study, September 2003, Planisphere for DSE.

[2] GORRLAS Precinct Package, Precinct 2.4, September 2003, Planisphere for DSE

- *The landscape setting of the precinct outside townships is of National significance and warrants additional protection and management*
- *Retention / restoration of the natural landscape between towns a high priority."*

The GORRLAS recognises the importance of the breaks between each of these settlements and provides the following Objective for Precinct 2.4:

- *To retain the dominance of an indigenous natural landscape in coastal areas, between townships, particularly from the Great Ocean Road.*

In addition it provides a number of Design Responses including:

- *"Avoid development…in coastal areas between townships wherever possible. If it cannot be avoided, site development sparsely to maximise retention of vegetation and views to the ocean.*
- *In between townships, located development a substantial distance from the Great Ocean Road."*

It also advises to Avoid:

- *"Loss of indigenous coastal vegetation.*
- *Ribbon development.*
- *Unclear edges to townships"*

The key Planning Scheme recommendations include additional development controls through the application of the Significant Landscape Overlay to private land outside the townships, a review and changes to the MSS and Local Planning Policies, and a new Local Planning Policy. In November 2004, the Significant Landscape Overlay Mapping Project more accurately defined the boundaries for the recommended SLO. The new recommended SLO area extends a significant distance beyond the area originally recommended in the GORRLAS, and well into the foothills.

The Department of Sustainability and Environment's *Coastal Spaces Inception Report*[3] also recognises the importance of the spaces between settlements along the entire Victorian Coast. It notes that 'the need to protect non urban areas between settlements is critical,' and that 'linear urban sprawl along the coast is a key concern for many Victorians.'

Development between the settlements should therefore be of a low scale or low profile, screened from views from the beach, Great Ocean Road and the settlements themselves through appropriate siting and landscaping, and the use of materials that are recessive in the landscape as discussed further below.

Apollo Bay to Skenes Creek

Only a small amount of development exists between Apollo Bay and Skenes Creek in the form of single rural residential dwellings or accommodation units. Many of the buildings are located on the lower portion of the hill and sometimes not visible from the Great Ocean Road because of vegetation or the road cutting. Development further up the hill is generally more visible, particularly from long distance views. This is demonstrated on the Visibility from the Great Ocean Road Map attached as *Appendix A.*

[3] Coastal Spaces Inception Report, May 2005, DSE

In this area, landscape still dominates views and vistas wherever they are available. However, the landscape dominance could potentially be lost if a greater number of properties along this stretch are developed more intensely in a manner that is not complimentary to the landscape character. There are several vacant or agricultural allotments fronting the Great Ocean Road in this stretch, some of which may be able to accommodate new development in the form of single rural residential dwellings, bed and breakfast establishments, or restaurants, hotel or other group accommodation associated with a rural or agricultural use, or redevelopment of existing uses under the Rural Conservation Zone. Land in this location between the coastal settlement boundary and Wild Dog Creek has been identified as being suitable for a non-urban form tourist accommodation development, provided that it is consistent with criteria specified in this Structure Plan. The importance of the landscape coupled with its exposure to views make it imperative that any development between Apollo Bay and Skenes Creek is managed appropriately.

Substantial planting with indigenous species would be beneficial to screen new developments and also regenerate the hillsides, some of which can suffer from landslip danger. Siting buildings and structures in clusters in the lower portion of the hill, using modest, low profile designs which nestle into the landform, and favouring muted colours and tones could also make a significant difference in minimising their visibility.

The point at which the development would pose the lowest visual impact on views from the Great Ocean Road, the beach and the settlements is approximately mid way between the property frontage and the 'break of slope' which occurs at some point between the 40 and 50 metre contour line, where the slope increases dramatically (the justification for the 40-50 metre contour line is discussed below in the *Development in the Otway Foothills* section). Developing on this flatter, lower part of the slope, with generous front setbacks, as well as setbacks from side boundaries, would provide adequate space for landscaping to screen the development from these public viewing points, while not being elevated to the extent that views of the foothills would be significantly affected.

Buildings should be sited to ensure that new development is spaced at substantial distances from other development on adjoining lots. Avoiding the use of solid fences and gateway entrances, manicured or highly altered landscapes near the Great Ocean Road frontage, and reducing the impact of signage and lighting is also important in maintaining a naturalistic landscape and the perception of a 'green break' between the settlements. Any new development needs to be able to address these issues satisfactorily.

The Otway foothills between Skenes Creek and Apollo Bay

Apollo Bay to Marengo

The land between Apollo Bay and Marengo is currently free from urban development largely as a result of flooding constraints and historical agricultural land use. The Great Ocean Green development, proposed between the current Apollo Bay settlement edge and the lower density development adjacent to the airport, includes a mix of housing, recreation (golf course), clubhouse, resort and significant amounts of open space and revegetation between the settlements. Housing is proposed to be clustered, and substantial planting is intended to screen development and feature in open space. There is the potential for a well-planned, landscaped development of this kind to enhance the environmental qualities between Apollo Bay and Marengo, however any development is likely to impact on the 'green' break. The siting and design of any development in this area is therefore critical.

It appears that a landscape dominated setting can remain between the settlements if this land is developed in a way that incorporates significant tracts of open space and / or landscape, and provided these are of sufficient size and positioned correctly. The Great Ocean Green plan would change the character of the landscape from an open, rural floodplain, to a vegetated, wetland setting with contrasting golf fairways. The plan could be improved to create a clearer break between Apollo Bay and Marengo, and to consolidate the landscaped areas into more effective open spaces. It would be important for vegetation to be planted between dwellings to reduce the appearance of a 'wall' of development from the Great Ocean Road. Planting at an early stage of subdivision would also allow the vegetation to mature before large numbers of dwellings are constructed. Dwellings would need to be constructed in the knowledge and understanding of the impact of vegetation on the potential for views to the ocean.

If development between Apollo Bay and Marengo is to occur it should take place predominantly to the north-west of the Barham River, with the potential for a minor, well-screened and low lying form of development adjacent to the northern edge of Marengo. This would ensure that the 'green break' between the settlements remains, particularly when viewed from the Great Ocean Road.

The C29 Great Ocean Green Reasons for Directions Report (September 2006)[4] took the view that a 350 metre buffer from the Great Ocean Road reserve would be adequate to achieve the "green break" objective. This would mean that development could occur on the south-east side of the Barham River for a distance of approximately 200-300 metres to the south-east of the river. If small pockets of the Great Ocean Green development are to occur on the south-east side of the Barham River, stricter controls would be necessary to ensure that the landscape objectives of maintaining a "green break" are able to be achieved. These controls would need to include:

- Limiting the form of development to single dwellings with a building height of no more than 4.5 metres above finished ground level, so that roofs are concealed below the tree canopy of the revegetated areas.
- Ensuring that planting is commenced well in advance of the development taking place, particularly within the 350 metre buffer and close to the proposed development, to create a partially established screen prior to development.

[4] Hereafter referred to as September 2006 Directions Report

- Ensuring that, at a minimum, a 25 metre buffer of Riparian Forest EVC is provided to the east side of any residential development, with varying vegetation heights to create an adequate screen from the Great Ocean Road.
- Requiring substantial vegetation, preferably of the same EVC, be provided within each residential property.

Objective

Maintain the 'green breaks' and landscape dominance between the settlements to ensure that each settlement remains distinct.

Strategies

- Discourage further subdivision of lots less than 40 hectares between Apollo Bay and Skenes Creek, by maintaining the minimum subdivision areas under the Rural Conservation Zone.
- Minimise the visual impact of new development between Apollo Bay and Skenes Creek particularly when viewed from the Great Ocean Road, by requiring that any new development:
  - Is set back substantially from the property frontage (approximately mid way between the frontage and the 'break of slope' between the 40-50 metre contour line, as defined on the Landscape and Environment Map) and from side property boundaries.
  - Is sited within the landform and reflects the slope of the site, to ensure the built form is recessive in the landscape context.
  - Sites buildings with existing vegetation and utilises informal new landscaping to screen the development from views from the Great Ocean Road and other public view points, while highlighting the topographic features of the site.
  - Clusters buildings together, avoids single monolithic buildings, and uses modest, low profile building forms.
  - Sites development away from ridgelines and protects the creek valleys from development, and avoids building on ridges, local hilltops or prominent hill faces.
  - Minimises the impacts of features such as fences, property boundaries and driveways, and avoid highlighting these features through the use of formal landscaping or rows of trees (in particular conifer shelter belts) along their alignment.
  - Uses muted, coastal recessive tones and colours and non reflective materials to assist in blending the development into the landscape context.
  - Provides minimal, low impact signage.

  - Utilises low impact lighting, such as sensor lights/down lights, to minimise light spillage and visibility.
  - Avoids solid gateways along the Great Ocean Road and the use of solid fencing, particularly for property boundaries.
  - Avoids heavily manicured landscaped gardens close to the Great Ocean Road.
  - Uses indigenous vegetation in naturalistic planting patterns, in the revegetation of stream lines, swales and higher land.
- Strengthen the landscape qualities of the Barham River valley through planting of appropriate vegetation and minimising changes to the landform.
- Require that any new subdivision and development between Apollo Bay and Marengo:
  - Maintains the sense of a landscape dominated 'green break' when viewed from the Great Ocean Road between Marengo and Apollo Bay, locating as much "green" open space as possible adjacent to the Great Ocean Road to maintain the impression of separation of the two settlements.
  - Largely restricts residential development to the area north-west of the Barham River (as an extension primarily to Apollo Bay) and the area immediately adjoining the low density area of Marengo.
  - Maintains a substantial green view corridor across the valley from the key viewing points at the southern edge of Apollo Bay.
  - Provides easy public access to the Barham River and new public open space, particularly for pedestrians, and shared pathways that link to the local network.
  - Fronts buildings onto all or most open space and golf course areas to increase passive surveillance, community safety and use of the space.
  - Includes substantial tree planting in the early stages of the subdivision, to provide a screen to new development as it is progressively constructed.
  - Concentrates new development close to the existing urban area of Apollo Bay, with higher densities closest to the town.
  - Limits building heights to 8 metres above natural ground level, with substantial building articulation in the upper level.
  - Utilises natural colours and materials that reflect those found in the local landscape, and avoids the use of reflective materials.
  - Minimises the need for earthworks or fill by developing land that is elevated and using lower lying land for public open space and environmental processes.
  - Addresses flooding issues, including any increased offsite flooding risk as a result of the development.
  - Addresses sedimentation impacts on the estuary and ocean, by trapping particulates and filtering runoff prior to discharge.
- In addition to the above, require that any development on the south-east side of the Barham River (and 350 metres or greater from the Great Ocean Road) associated with the Great Ocean Green:
  - Is limited to single dwellings with a building height of no more than 4.5 metres above finished ground level, so that roofs are concealed below the tree canopy of the revegetated areas.
  - Ensures that planting is commenced well in advance of the development taking place, particularly within the 350 metre buffer and close to the proposed development, to create a partially established screen prior to development.

  - Ensures that, at a minimum, a 25 metre buffer of Riparian Forest EVC is provided to the east side of any residential development, with varying vegetation heights to create an adequate screen from the Great Ocean Road.
  - Provides substantial vegetation, preferably of the same EVC, within each residential property.
- Implement the recommendation in the Great Ocean Road Region Landscape Assessment Study, to prepare an amendment to introduce the Significant Landscape Overlay (SLO) to private land within the Rural Conservation Zone (both within and outside of the Study Area). The planning controls should recognise and protect the National significance of the Apollo Bay, Marengo and Skenes Creek landscape and enable greater discretion to be exercised by Council over the form of development that can occur in this area, by:
  - Requiring a permit for all buildings and works.
  - Requiring a permit for all earthworks.
  - Specifying maximum dimensions for an outbuilding before a permit is required for construction.
  - Specifying landscaping requirements for new development to achieve informal plantings of indigenous vegetation, which reinforces the landscape values of the precinct.
- Require developers to provide a realistic visual impact illustration of the view of the development from key viewpoints along the Great Ocean Road.

Development in the Otway Foothills

The foothills provide a natural backdrop to Apollo Bay and Skenes Creek and visually appear to set a limit to urban development, which is focused in the lower portion of the hill. The topography rises sharply behind each settlement, and creates a strong impression of the urban areas being subordinate to the landform. The GORRLAS acknowledges the significance of the foothills in defining the dramatic natural setting of the area, and their sensitivity to development pressures, in particular:

- *Skyline development along ridges*
- *Excavation on hill faces*
- *'Creep' of settlements along Great Ocean Road and up hill faces.*

GORRLAS notes that "residential development encroaching up hill faces outside townships" is a key issue to be addressed. Future subdivision or even development at a rural-residential density or clustered cabin-style accommodation could impact on the naturalness of this setting and detract from the significance of the foothills.

Development in the foothills behind Skenes Creek

This area is highly sensitive to impacts from development for a number of reasons. There is often a lack of vegetation to screen the development and planting of new vegetation is not always desirable from the perspective of property owners due to the possibility of losing views to the ocean. There are also a number of ridgelines in this area and if development is located on a ridge, it can form a silhouette against the skyline or the hills behind. The area is highly visible from a number of areas, particularly the Great Ocean Road, because of its elevated position.

Development above the 40-50 metre contour line is particularly visible, as it is at a point between these contour lines that the hill slope steepens substantially ('break of slope'), rising above the more gently sloping land down to the ocean (see the *Visibility From the Great Ocean Road Map* - Appendix A and the *Slope Analysis Map* - Appendix B).

A line has been defined above which development would have a more significant impact on views, and this is located between the 40 and 50 metre contour line, based on topographic features and visibility from key viewing areas. This line should form a firm limit to urban growth of Apollo Bay, and outside Apollo Bay, to the north in particular, development opportunities above this defined 'break of slope' line will need to be limited to reduce the impact on this significant landscape. Any development permitted above this height would need to adhere to strict guidelines to ensure it remains recessive in the landscape context.

The clearance of the original vegetation and use of the foothills for grazing has led to the establishment of weed species, which detract from the visual and environmental qualities of the area. Feedback from Council and the community has indicated that this can in part be attributed to the small size of some land parcels, the declining viability of agricultural uses in the immediate area, and the lack of incentives for land owners to address the issue. A combination of educational programs, incentives and enforcement (e.g. where weeds are noxious) may be required, in combination with progressive replanting with indigenous species that would have existed in the area prior to clearance.

Objective

Protect the Otway foothills as a scenic, undeveloped backdrop to Apollo Bay, Marengo and Skenes Creek.

Strategies

- Limit urban expansion to below the 40-50 metre contour line or 'break of slope' where the urban areas adjoin the foothills.
- Minimise the visibility of any development in the foothills and ensure that the built form is recessive in the landscape context when viewed from the Great Ocean Road and other public viewpoints by ensuring that it:
  - Is sited within the landform and follows the slope of the site, to minimise excavation and the use of elevated building platforms.
  - Does not result in the loss of indigenous vegetation or vegetation that would serve to screen the development.
  - Is limited to below the height of existing canopy trees, if present.
  - Utilises informal landscaping and new canopy trees to screen the development from views from the Great Ocean Road, while highlighting the topographic features of the site.
  - Minimises the impacts of features such as fences, property boundaries and driveways, and avoids highlighting these features through the use of formal landscaping or rows of trees (in particular conifer shelter belts) along their alignment.
  - Uses muted tones and colours and non reflective materials to assist in blending the development into the landscape context.
  - Incorporates driveways that follow the contours to minimise cut and fill.
  - Minimises the use of paving or other hard surfaces.
  - Places restrictions on the construction of tennis courts, swimming pools and other buildings and works that would require substantial excavation and use of retaining walls.
- Encourage the revegetation of the Otway foothills with indigenous trees and understorey vegetation to assist in reinstating the original habitat, improving stability, and reducing erosion and the spread of weed species.
- Encourage land owners to manage and progressively eradicate weed species on private land, through educational programs and incentives, and where necessary seek to enforce the legislated responsibilities of property owners under the *Catchment and Land Protection Act 1994.*
- Restrict further subdivision and small lot excision in the Otway foothills.
- Limit development of the foothills to single dwellings on rural allotments and low key agricultural uses.

Development in low-lying areas, ecologically sensitive areas and areas of environmental risk

The study area contains a number of ecologically sensitive areas and areas affected by natural hazards, which may pose a risk to future use or development, or be detrimentally impacted by future use and development. These include areas subject to inundation (low lying areas, particularly in floodplains), areas with a high wildfire risk, land prone to erosion or landslip, and areas of potential acid sulfate soils. Some of these hazards are likely to compound in the future, particularly as a result of climate change.

Clause 15.08 of the SPPF was amended on 9 October 2006, and now clearly articulates and implements the land use and development strategies of the *Victorian Coastal Strategy 2002* and the State Government policy context arising out of the Coastal Spaces Report and Great Ocean Road Region Landscape Assessment Study. The clause includes the following relevant strategies:

"Planning for coastal areas should:

- Protect non-urban areas for their visual landscape, environmental, agricultural and recreational qualities.
- Identify and avoid development in areas susceptible to flooding (both river and coastal inundation), landslip, erosion, coastal acid sulfate soils, wildfire or geotechnical risk.
- Avoid development within the primary sand dunes and in low lying coastal areas.
- Avoid disturbance of coastal acid sulfate soils."

The expert witness reports and the September 2006 Directions Report[5] for the Great Ocean Green proposal also provide specific information in relation to these issues.

Climate Change

The issue of climate change is one that has been given inadequate attention until recent times, with the risks associated with failure to act now becoming difficult to ignore. There is clear evidence that our climate is changing, and recent projections and studies undertaken by the CSIRO and with the support of the Victorian Government[6], suggest that in the future the climate in the Corangamite region will be warmer and drier than it is presently. There is projected to be an increase in average temperatures of 0.2 to 1.4 degrees Celsius by 2030, and between 0.7 and 4.3 degrees Celsius by 2070, with corresponding increase in the number of hot summer days (35 degrees Celsius or more) and a decrease in the number of frost days per year. Rainfall is likely to decrease, but there may be an increased intensity during heavy rainfall events, which has implications for both water supply and the future function of floodplains and water ways. Droughts are also likely to become more frequent, intense and longer lasting. With increased evaporation rates, lower rainfall and drier soils, there is likely to be an increased risk of wildfire. In coastal regions, winds are likely to intensify, with changed storm events and a sea level rise of between 7 and 55 cm is projected for 2070 (0.8-8.0 cm per decade). It is anticipated

[5] Planning Panels Victoria (2006) Colac Otway Planning Scheme, Amendment C29 Great Ocean Green Development, September 2006 Directions

[6] Department of Sustainability and Environment (2004) *Climate Change in the Corangamite Region*

that when this plan is reviewed in five years time, further information on climate change and more certain forecasts may potentially be available.

Coastal and Estuary Management

The Central West Victoria Regional Coastal Action Plan (2003)[7] was prepared as a key means of implementing the Victorian Coastal Strategy. Various objectives and actions are identified for implementation, with the key role for the Colac Otway Shire being to ensure that relevant objectives and strategies are included within the Local Planning Policy Framework of the Planning Scheme, in relation to the key areas of Integrated Coastal Zone Planning & Management, Biodiversity, Natural and Cultural Heritage, Coastal Land, Coastal Waters and Human Settlement. The Central West Victoria Estuaries Coastal Action Plan (2005)[8] provides a planning and management framework for improving estuary quality in the Central West region, between Moonlight Head and Point Lonsdale. It identifies estuaries and estuarine wetlands as important natural systems, which link catchments with the sea, and provide habitats including wetlands, fish and bird habitats, sand banks, mudflats, seagrass beds and mangrove and saltmarsh. The Barham River, Wild Dog Creek and Skenes Creek estuaries are identified within the Plan for the study area. The study notes that estuaries *"are an important component of the coastal landscape, and have social and economic values. They are also one of the most productive ecosystems on earth, excelling in nutrient recycling, trapping of sediments and high biodiversity.*

In particular, estuaries:

- *provide habitat for native plants and animals;*
- *provide nursery and breeding sites for aquatic fauna;*
- *are valuable recreation resources;*
- *provide landscape values;*
- *are sites of cultural, scientific and educational significance; and*
- *contribute economic value, particularly with respect to fishing and tourism." (p.11)*

Numerous pressures on estuaries are identified, particularly in relation to land use and development, including encroaching urban development, flooding and altered flows, clearing of vegetation, effluent and stormwater discharge, access by livestock and people, and pest plants and animals (p.16). Within the study area, the Barham River estuary was identified as requiring a management plan as a medium priority (3-4 years) to monitor estuary health and condition and implement an action plan, drawing on previous studies and plans including, the Marengo to Skenes Creek CAP (PPK Environment and Infrastructure 2001) Apollo Bay Estuaries Management Action Plan for the Barham River, Wild Dog Creek and Skenes Creek (Chris Harty Planning and Environment Management on behalf of the Southern Otway Landcare Network and the Apollo Bay - Kennett River Foreshore Committee of Management 2003). The management option identified for Wild Dog Creek and Skenes Creek is to monitor estuary health and condition, and reference is also made to the above studies and plans.

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[7] Margie Morrice, 2003, with assistance from the Central West Victoria Coastal & Marine Planning Program Steering Committee and Christine Barnes.

[8] The Central West Victoria Estuaries Coastal Action Plan (2005) was prepared in partnership through the Central West Victoria Coastal and Marine Planning Program (CMPP) and funded by the Natural Heritage Trust, CMPP partners and the Corangamite Catchment Management Authority.

Any development within or adjacent to estuaries should contribute to improving the ecological function and value of these ecosystems, particularly where these are currently degraded.

Wildfire

The general threat of wildfire and wildfire management is an issue with which the Council is familiar. A Wildfire Management Overlay has been applied in collaboration with the Country Fire Authority in areas surrounding the settlements (and extending partly over the Skenes Creek settlement). This Overlay applies where the intensity of wildfire risk is significant and likely to pose a threat to life and property, and includes requirements relating to siting and design, access, water supply and vegetation management. Management of wildfire risk can be promoted through promotion of appropriate CFA publications, education about vegetation management and reducing fire risk. A concern was raised by the community that revegetating the foothills would result in increased threat to settlements, however this would not necessarily result in increased fire risk as the vertical structure of the vegetation combined with the direction of the slope and the proximity of development to vegetation are more likely to impact on fire risk. The CFA will need to monitor changes in vegetation, climate, rainfall etc. and respond appropriately in terms of expanding the WMO area and implementing any other necessary measures to protect communities.

Flooding

The Barham River floodplain is the key area within the study area that is subject to inundation, largely during storm events from the drainage function of the river and floodplain, but also due to inundation during low flows when the mouth of the river is closed and water does not flow through to the ocean. Flooding is considered in depth as a part of the Amendment C29 panel process, with expert witness reports considered as a part of this process and reported in the September 2006 Directions Report. This report notes that even during a 1 in 10 year event, the flooding area is significant. Potential sea level rises, discussed above, could also impact on flood levels. For the Great Ocean Green propasal, it was proposed to provide fill to bring the housing areas above the 1 in 100 year flood level, with suggestion that the freeboard height be 600mm above the 1 in 100 year flood level to provide protection to property in the event of flooding combined with potential sea level rises. The report also recommends that a Flood and Inundation Management Plan be included as a component of an amendment in the Barham River floodplain.

Due to the presence of acid sulfate soils, discussed below, any water retardation measures proposed for the Barham River flooplain to enable development of this land would need to ensure that disturbance of these soils does not occur. Water retardation may therefore need to be in the form of wetlands and cover larger areas than retardation areas, in order to mitigate flooding impacts on the Barham River and surrounding land (including the recreation reserve).

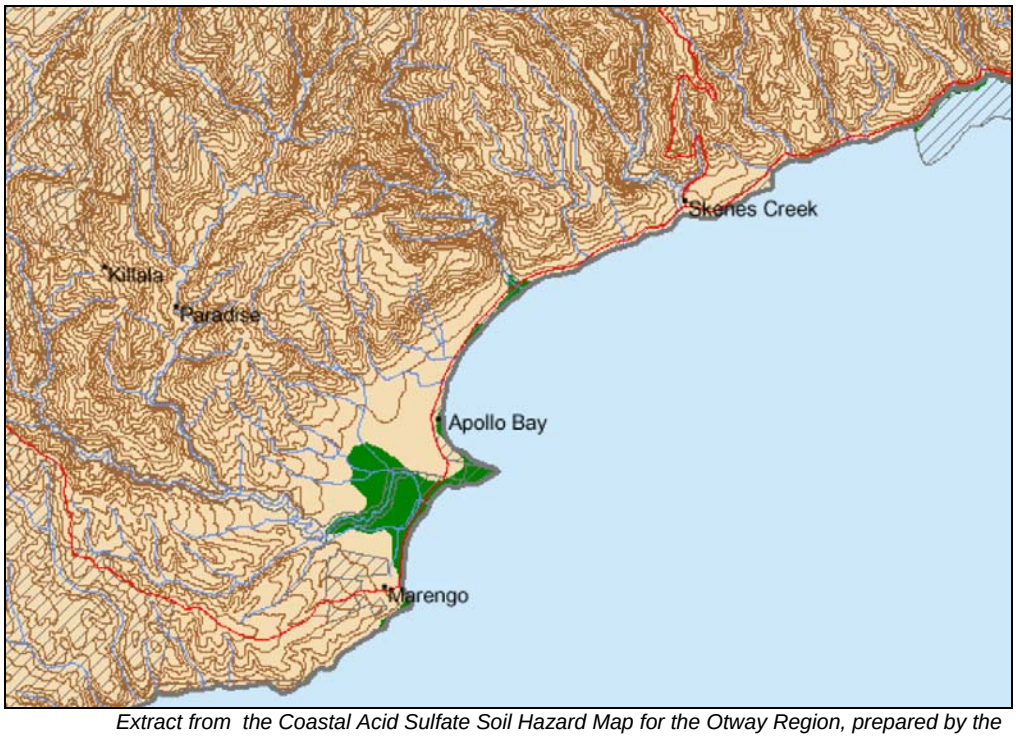
Acid Sulfate Soils

A report produced by the Department of Primary Industries (DPI)[9] provides a tool for the management and identification of Acid Sulfate Soils (ASS), which pose a constraint to growth in many coastal areas. Acid sulfate soils (ASS) are naturally occurring soils which have formed over the last 10,000 years under waterlogged or anaerobic conditions, and are not a concern in areas where the soils remain undisturbed, however when they are disturbed through drainage or construction (including infrastructure such as bridges or underground pipes), oxidation of the soil

[9] Department of Primary Industries (DPI) (2003) *Acid Sulfate Soil Hazard Maps: Guidelines for Victoria* (Rampant et al.)

occurs and sulfuric acid is produced. This acid leachate, as well as the aluminium, iron and heavy metals this releases from soils, can have a significant and detrimental effect on lowland environments and estuarine water quality, and result in significant impacts on infrastructure such as pipes and bridges.

Mapping of potential ASSs by the Department of Primary Industries has identified significant areas potentially affected within the Barham River floodplain, as well as around Point Bunbury and northwards to Wild Dog Creek, as shown in the map below. Preliminary investigation of ASSs carried out for the Great Ocean Green proposal indicated that actual and potential ASSs exist across a significant portion of the site, particularly on the western side of the site below 0.5 metres[10]. In considering the expert evidence and the proposed Great Ocean Green development, the Planning Panel for Amendment C29 recommended in its directions report of September 2006 that a Comprehensive Development Plan prepared for the Barham River floodplain ensure that "areas of acid sulfate soils are not disturbed (with the possible exception of service trenches)" (p.36). As discussed above, Clause 15.08 of the SPPF also reinforces the importance of not disturbing acid sulfate soils. The presence of acid sulphate soils also should not be used as justification for increased fill or construction of building platforms for development if this would be inconsistent with other parts of the Structure Plan (e.g. protection of ecological values, impacts in terms of flooding, increased impacts on landscape values etc.).



Extract from the Coastal Acid Sulfate Soil Hazard Map for the Otway Region, prepared by the Department of Primary Industries. The green areas show the extent of probable Acid Sulfate Soils, and the grey hatched areas show public land. Source: www.dpi.vic.gov.au

[10] ERM (2006) Acid Sulfate Soil Management Plan, Proposed Great Ocean Green Development, Apollo Bay, Victoria.

Erosion and landslip

The Erosion Management Overlay applies to large areas of land surrounding the townships, including the Barham River floodplain. This overlay is applied to protect areas prone to erosion and landslip through the minimisation of land disturbance and inappropriate development in the Otway Coastal Foothills. Its application should generally be sufficient to manage associated risks. At the edge of urban areas, where development abuts the 40-50 metre contour or steeply sloping land, consideration should be given to the need to provide a land slip run-out area to reduce risk caused by slope failure.

Flora and Fauna within the Barham River floodplain and estuary

Flora and fauna studies prepared for the Great Ocean Green proposal indicate that in general the Barham River floodplain and estuary is degraded and is dominated by exotic pasture species with some intact patches of Estuarine Wetland (an endangered Ecological Vegetation Class (EVC) in bioregion) and Coastal Dune Scrub depleted EVC in bioregion)[11]. The long history of agricultural use has resulted in terrestrial fauna habitats of limited value, and the zoological conservation significance is considered to support indigenous water birds of at least local significance for the majority of the site, although the presence of the Great Egret gives the estuary state significance. The removal of grazing and revegetation of the site with indigenous species in conjunction , particularly within a 50m buffer either side of the Barham River and 10m either side of Anderson Creek), combined with the protection of remnant vegetation, has the opportunity to substantially increase the habitat value of the area. An Environmental Management Plan is recommended to be implemented during development to reduce potential impacts, and this is supported by the September 2006 Directions Report.

Objective

Recognise and protect ecological values and avoid development in areas at risk from the effects of flooding, wildfire, acid sulfate soil disturbance, erosion, landslip and salinity.

Strategies

- Implement the Management Action Plans that have been prepared for the Barham River, Skenes Creek and Wild Dog Creek.
- Implement the relevant objectives and recommendations of the Central West Victoria Estuaries Coastal Action Plan (2005) and the Central West Victoria Regional Coastal Action Plan (2003).
- Ensure any new development in flood affected areas and near estuaries and water courses demonstrates how the objectives of the Apollo Bay Estuaries Management Action Plan (Chris Harty Planning and Environmental Management, 2003) and the Skenes Creek to Marengo Coastal Action Plan will be achieved.
- Provide an appropriate indigenous vegetated buffer of pre 1750 EVCs of at least 50 metres from either side of the Barham River and 10 metres from either side of Anderson Creek, and ensure that this buffer is maintained free of development in order to recognise and protect the ecological function of the estuary and floodplain.

[11] e.g. Brett Lane and Associates (2006) Great Ocean Green Flora and Fauna Report

- Ensure that any development within the Barham River floodplain is constructed at least 600mm above the 1 in 100 year flood level, and avoids the need for significant use of fill where possible.
- Ensure that any development within the Barham River floodplain:
  - Achieves a significant improvement to the environmental values of the estuarine, riparian and terrestrial environment, including the reinstatement of indigenous vegetation.
  - Protects the remnant Estuarine Wetland and Coastal Dune Scrub existing on the site.
  - Adequately monitors, addresses and manages issues of altered flood patterns (both on- and off-site) and increased nutrient loads in water ways, and is constructed and managed in accordance with recent best pracitice stormwater runoff guidelines.
  - Maintains the continuation of the natural cycle of wetting and drying of the estuary and that the development can continue to function while the estuary is in a period of inundation.
  - Includes the development and implementation of an Environmental Management Plan, Construction Management Plan and Flood and Inundation Management Plan, including regular water quality monitoring and annual fish surveys of the Barham River and Anderson Creek.
  - Mitigates potential additional flooding of surrounding land, particularly the recreation reserve (e.g. contribution to levee banks and/or drainage).
- Encourage the revegetation of river and creek valleys and gullies with indigenous vegetation.
- Introduce an appropriate schedule to the Environmental Significance Overlay to the areas affected or potentially affected by Acid Sulfate Soils, as identified by the Department of Primary Industries Acid Sulfate Soils Mapping Project, in order to trigger a permit requirement for any development that would involve excavation and potentially expose these soils (including for the construction of water retention areas).
- Ensure that areas identified as containing or potentially containing Acid Sulfate Soils are tested prior to approval of any development, and where found to be present, that these Acid Sulfate Soils are not disturbed by development or works.
- Ensure that where development in areas of Acid Sulfate Soils is to be approved, that a condition on the Planning Permit requires that a management plan is put in place to ensure that any inadvertent disturbance of Acid Sulfate Soils is appropriately monitored, managed and rectified for both on- and off-site impacts.
- In collaboration with the CFA, continue to manage wildfire risk through the application of the Wildfire Management Overlay, including periodically reviewing these areas to ensure the Wildfire Management Overlay is applied to appropriate areas.
- Provide information to residents and landowners about CFA publications and educational programs to ensure the community is aware of wildfire risks and methods to reduce risk, including through appropriate management, selection and placement of vegetation and landscaping.
- Promote ecotourism opportunities in conjunction with a rehabilitated and revegetated Barham River floodplain, including nature walks, bird watching and canoeing.
- Maintain the Erosion Management Overlay on steeply sloping and unstable land surrounding the settlements.

- Where urban development of Apollo Bay abuts the 40-50 metre contour line or a steeply sloping part of the foothills, consider the need for a buffer area free of development to allow space for landslip debris in the event of slope failure and to reduce risk to life and property.

Urban entrances

Entrances to the urban areas are important definition points, emphasising the 'green breaks' and the particular qualities of each settlement.

Apollo Bay

Northern entry -The arrival into Apollo Bay from the north is signified by the avenue of Cypresses in the foreshore reserve on one side and the beginning of urban development on the other side. The Cypresses and the large, grassed, road reserve on the opposite side could be important elements to emphasise and enhance in this entry. It is recognised, however, that the Cypresses are nearing the end of their life-span.

The Bridge at the southern entry to Apollo Bay

Southern entry - There is a sense of arrival into Apollo Bay from the south when crossing over the Barham River Bridge even though the town entrance sign is located approximately 100 metres before this point. Views are enclosed by coastal vegetation and open up after crossing the bridge. There are a number of buildings located on the distant landform rise that feature prominently at this entry vista. Future development on these sites should minimise further impacts by demonstrating excellent architectural quality and blending with the landscape setting.

Northern town centre entry – Although the commercial zoning begins further south, there is a sense of arrival into the town centre at the service station and the beginning of the tourist accommodation area just south of Murray Street. This is due to the smaller front and side setbacks of the accommodation buildings that are more consistent with the commercial buildings.

Southern town centre entry – The greatest sense of arrival to the town centre from the south is experienced when travelling through the 90 degree bend from the Great Ocean Road into Nelson Street. At this point the view opens up to capture the shops, the foreshore reserve and the water. There is a single Cypress tree located close to the corner, which also adds to the sense of arrival.

This entrance could be potentially enhanced through improved siting of structures in the foreshore reserve to provide an uninterrupted view along the foreshore reserve. A prominent building site in this area is the triangle of land bounded by the Great Ocean Road, Nelson Street and McLaren Parade. A permit has recently been granted for a combined commercial retail development and 8 dwellings to a height of two storeys.

Skenes Creek

North eastern entry to Skenes Creek

North eastern entry - The journey over the hill that descends into the Skenes Creek Valley marks the entrance to Skenes Creek. After passing over the rise, views open up across the residential areas and to the backdrop of hills. An entrance sign is also located just before the descent.

South western entry – Entry from the south west is located on a bend in the road before the edge of residential development.

Northern entry – Entry from Colac is located on the bend in the road before the edge of residential development.

Marengo

Western entry - The western entrance to Marengo along the Great Ocean Road is signified by a descent in the hill approaching the settlement. Each side of the road is lined with native coastal vegetation which frames the view across the water to the Otway foothills. There is also a Marengo entrance sign at this location.

Northern entry – A sense of arrival from the north is not as obvious. The beginning of the low density area provides the first arrival feature, but it does not resemble the densities of the urban areas of Marengo. A second entry point is located at the bend in the road on the approach to the residential area.

Objective

Reinforce and enhance the identity and the sense of arrival and departure at the entrances to Apollo Bay, Marengo and Skenes Creek.

Strategies

- Utilise signage and landscape techniques to signify the entry points of each settlement along the Great Ocean Road and Skenes Creek Road, as set out in *Settlement and Town Centre Entrance Guidelines* below.
- Strengthen the distinct identity of each settlement at the entry points.
- Mark the entry points to the commercial and retail area of Apollo Bay with landmark buildings of excellent architectural quality, reflecting the seaside character of the centre (see *Landscape Setting and Environment* Map for more detail).
- Rationalise and coordinate the use of signage at settlement and town centre entry points – use a single sign only for each entry point.
- Introduce sign support for consistently designed festival or event signs as sign or banner sign at both entries to Apollo Bay
- Avoid locating a multitude of (public and private) signs in the vicinity of entrances.
- Remove redundant older signage.

Settlement and Town Centre Entrance Guidelines

Settlement Entries:

Skenes Creek from Lorne

- Increase planting of low coastal vegetation on hill faces, roadside verges and town edges.
- Restrict private signage extent and location.
- Ensure architectural excellence of buildings.
- Integrate buildings into town edge and soften with informal coastal vegetation plantings.
- Provide a single town identification sign.

Skenes Creek from Colac

- Reinforce bush setting.
- Restrict private signage.
- Retain views down to Creek.
- Protect view to sea.
- Provide a single town identification sign.

Skenes Creek from Apollo Bay

- Avoid buildings on ridge.
- Restrict private signage.
- Reinforce view to coast.
- Extend roadside coastal vegetation on inland side.
- Establish coastal planting on Tiger Lane to soften housing edge.
- Provide a single town identification sign.

Apollo Bay from Skenes Creek

- Increase planting to private land frontages.
- Increase planting to inland roadside verges – start coastal town theme planting.
- Ensure a high level of architectural excellence.
- Provide consistent signage – single town sign in one location.
- Consolidate signage – provide a structure to carry consistent temporary sign or banner sign for festivals etc.
- Consolidate service club sign with main town identification sign or relocate to visitor information centre.

Apollo Bay from Marengo

- Strengthen coastal roadside planting.
- Protect views to coast, river and bridge.
- Control of private signage.
- Provide a single town identification sign.
- Protect the 'green break' between towns.
- Possible new installation for consistent signage for festivals and events – sign or banner sign.

Marengo from Apollo Bay

- Reinforce roadside coastal planting.
- Avoid prominent buildings adjacent to the Great Ocean Road.
- Provide a single town identification sign.

Marengo from Port Campbell

- Maintain clear skyline view.
- Protect existing low coastal vegetation.
- Provide a single town identification sign.

Town Centre Entries:

Northern Town Centre Entry

- Thompson Street corner (service station).
- Encourage redevelopment of the service station site with distinctive architecturally well designed building (if an alternative service station site can be found).
- Encourage development of land between Thomson Street and the commercial area with distinctive architecturally well designed buildings to reinforce town centre entry.

Southern Town Centre Entry

- Already well defined by war memorial obelisk, hotel and single Cypress tree.
- Enhance entry with well designed distinctive architecturally building on triangle site (Nelson and Maclaren Street)

Apollo Bay foreshore reserve

The management of the Apollo Bay foreshore reserve is the responsibility of the Apollo Bay and Kennett River Public Reserves Committee of Management. This includes vegetation and weed management of the foreshore area. However, the Structure Plan also has an important function in providing strategic direction for this area as a component of the entire Plan.

The foreshore reserve plays an important role both as a landscape and recreational feature. The beach curves around from the north towards the harbour area and is backed by a vegetated primary dune for most of its length which is narrower, lower, and less vegetated in the north. The reserve is mostly grassed with intermittent avenues of Cypress trees, a number of structures, and car parking close to the Visitor Information Centre and Surf Life Saving Club.

The reserve is a significant drawcard for many local residents and holiday makers for the passive and active recreational opportunities it provides. Facilities include: barbeques and shelters, picnic tables and chairs, play equipment, a skate park, and public toilets. Most of the barbeques, shelters and picnic tables are distributed to the south where the foreshore is the widest and public toilets are distributed evenly throughout the reserve.

The reserve also hosts carnivals in the summer season and markets on the weekends, which also attract tourists.

Siting and design of structures within the reserve

Many of the structures within the foreshore reserve are highly visible from a number of viewpoints and this detracts from the naturalness of the setting. The high visibility is often due to the openness of the reserve, lack of vegetation, the siting of structures in prominent locations, and the design, materials and colours of the structure. The Siting and Design Guidelines for Structures on the Victorian Coast[12] provide coastal reserve managers with a comprehensive set of development objectives and guidelines for new development within the foreshore reserve.

A large proportion of structures in the reserve were developed before the guidelines were in place, and many would not comply with these guidelines today. One example is the Surf Lifesaving Club. This building is located in a prominent position, it is not screened by vegetation, incorporates heavy and dark materials and does not have a building form which is suited to the coastal setting. Another example is the toilet block at the southern end of the reserve, which interrupts the viewline along the reserve when approaching the town centre.

An opportunity exists for new buildings and structures to be sited more appropriately and designed in a way which reflects the valued characteristics of the Apollo Bay beach setting. Initiatives such as providing consistent furniture styles and signage across the entire foreshore reserve could provide for better visual co-ordination.

The foreshore reserve could also benefit from additional vegetation. Trees can provide shade for people relaxing in the grass, they can help to screen prominent structures and add to the naturalness of the reserve.

The potential of the foreshore for walking and cycling could also be improved. More consistent and coordinated pedestrian connections along the foreshore linking with the boardwalk to the north and harbour to the south would be advantageous, in addition to a direct link from the town centre to the harbour.

Objective

Improve the appearance and amenity of the foreshore reserve in Apollo Bay and reduce the impact of the existing and future structures on the naturalness of the setting.

Strategies

- Recognise that the primary management responsibility for the foreshore falls to the Apollo Bay and Kennett River Public Reserves Committee of Management.
- Minimise further development of the foreshore area to ensure that it remains available for community use, recreation and tourism purposes.
- Ensure that any new buildings or structures within the foreshore area are appropriately sited and designed to reflect the valued characteristics of the Apollo Bay beach setting. Where new structures are necessary, these should be consistent with the *Siting and Design Guidelines for Structures on the Victorian Coast 1998*, in particular:
  - Set structures back from the shoreline as far as possible.
  - Structures should not impede public access to the beach.

[12] *Siting and Design Guidelines for Structures on the Victorian Coast*, 1998, Tract Consultants and Chris Dance Land Design for the Victorian Coastal Council.

- Materials, finishes and structural design should be durable in the coastal environment, and be sited and designed for energy efficiency.
- Drains, bridges, boardwalks and other structures should be designed so they are incorporated into the coastal landscape, rather than being stand alone structure.
- The form of new structures and the colours and textures used should maintain and enhance the established coastal landscape character and dominant forms, colours and textures in the surrounding environment. These should relate to the surrounding development as well as to the vegetation and landforms (dunes).
- Where possible, structures should not impair views to the coast, in particular key views along identified accessways, and should enrich views to and from the coast.
- The design of structures, outdoor furniture, signs and utilities should be visually coordinated.
- Natural vegetation should be disturbed as little as possible, and natural regeneration and active revegetation with indigenous species should be encouraged.
- Siting and design should be ecologically sustainable, and should recognise the significance of environmental processes such as the greenhouse effect and ozone depletion.

- Establish a town link for pedestrians and cyclists across the foreshore reserve from the southern end of the town centre of Apollo Bay (near Maclaren Street) to the harbour, incorporating clear viewlines, as shown in the *Harbour Concept Plan.*
- Additionally, buildings and structures should be designed and detailed so they:
  - Are related to the path system and the town link at the southern end of the foreshore.
  - Are sympathetic to and complement the foreshore park landscape
  - Avoid dominating the open grassed areas.
  - Use robust and coastal environment materials, finishes and details in buildings and other structures.
  - Reflect and contribute to a robust foreshore design theme which takes its design cues form the successful visitor centre.
  - Use colours and materials which complement the coastal landscape setting such as galvanised corrugated iron, and natural finished or weathered timber.
- Improve pedestrian and cyclist connections through the foreshore reserve, particularly for north-south movements, linking the boardwalk to the north with the harbour to the south of the town centre. This should incorporate a continuous, direct path along the back of the dune and a second path on the road side of the foreshore reserve, as shown in the *Access* Map.
- Investigate opportunities for the relocation or replacement of foreshore structures that detract from the landscape setting of the dunes and beach, are unsympathetic to their context, or obstruct key viewlines between the town centre and the beach. Where relocation or removal is not possible in the short term, utilise landscaping to screen these structures and soften their impact, and consider improvements such as repainting to assist in blending the structures into the landscape. Recommendations for each structure are listed below.

Recommendations for Foreshore Buildings and Structures

Building or Structure	Description	Recommendation
Information Centre	Robust weathered timber and curved roof group of buildings with linking decks.	Retain and use as design influence for foreshore building and structures theme.
Life Saving Club	Brown brick building dating from 1970's. Pitched roofs with some more recent additions. Imposing and poorly sited. Appears to be a fair investment in structure.	Retain but renovate and update to foreshore design theme.
Toilet Block	Single block using similar design to the information centre. Prominently sited. Requires maintenance. Single building form is less successful than the information centre group.	Relocate or retain but renovate. If relocated, future toilet blocks should be more carefully sited or incorporated into other buildings as are the information centre toilets.
Picnic pavilion(s)	Existing pyramid roofed structure treated pine and metal cladding roof.	Retain in short term. Design theme pavilion in longer term.
Skate Board ramps	Concrete and metal complex. Well used facility in holiday period. It has been designed to be set into the landscape more so than other facilities.	Retain.
Playground	Treated pine – fenced off to prevent use.	Remove and replace with more up to date facility.
Toilet block	Concrete block adjacent to car park at the southern end of the foreshore reserve.	Demolish and incorporate in new foreshore building.
Golf Course Club House	Cement sheet 1950s or 60s skillion roofed structure.	Demolish if golf course relocates or replace with building designed to foreshore theme.
Fisherman's Co Op	Painted masonry/concrete block and asbestos cement sheet.	Redevelop as part of a harbour landside redevelopment.

Dune management

The high sand dunes are a striking feature of the Apollo Bay foreshore reserve. Some members of the community have raised the possibility of lowering the dunes to their original size before the introduction of the harbour and breakwaters. Many years ago, the town centre was closer to the water and the dunes were much lower allowing views to the water. The introduction of the breakwater has caused a shift in the sand from the northern area of the foreshore to the south, which has resulted in higher dunes and a wider foreshore in front of the shops.

The introduction of the exotic marram grass has further contributed to the growth of the dunes. This grass is widely used for dune stabilisation and to protect dunes from natural coastal processes of erosion, as it has strong colonising and sand holding qualities. In addition to contributing to the size and steepness of the dunes, marram grass also has the disadvantage of being highly invasive, and indigenous vegetation has difficulty competing. Investigations into the feasibility of eradicating marram grass, and reintroducing indigenous species should be explored.

One of the benefits of lowering the dunes would be reinforcing the presence of the ocean and adding this to the view from the shopping area and foreshore reserve. Lowering the dunes would also make the commercial area more attractive to development, particularly accommodation.

However, there could also be negative impacts associated with lowering the dunes. The removal of the existing vegetation could destabilise the dunes causing erosion problems and other environmental impacts such as loss of habitat. Other environmental impacts would required detailed investigation. The sense of privacy and remoteness that is currently experienced at the beach could be lost by opening up this area to the shops and the foreshore reserve. Recreational activities in the grassed foreshore reserve could also be affected as the dunes currently provide wind protection to this area. It is also anticipated that any changes to the dunes would only be temporary and would require constant maintenance.

It may be possible to enhance the connection with the ocean without lowering the dunes. Providing viewlines along prominent accessways to the water could be one method. Access points could be sufficiently wide and located to meet up with the end of streets and the end of major pedestrian access paths. This would not only provide more convenient access but it would provide views to the water. Other accessways through the dunes could also be rationalised to minimise further environmental impacts. It must be recognised however that any change to the dunes would involve substantial initial cost and disruption, and constant maintenance.

Detailed studies would need to be undertaken to assess the impacts of any alterations to the dunes. It could also be important to undertake Coastal processes studies and implement coastal hazard management plans for Apollo Bay, Marengo and Skenes Creek because of the potential risks posed to development from climate change.

Objective

Achieve improved visual and physical links between the Apollo Bay town centre and the beach, better manage weed species and increase indigenous vegetation on the dunes.

Strategies

- Formalise pedestrian accessibility from the town centre to the beach access points.
- Investigate options to enhance visual and physical links between town centre and sea through alterations to dunes. This would require an Environmental Impact Assessment, economic feasibility assessment and further community consultation). As an initial action, seek advice from an expert in coastal processes/dune restoration in relation to cutting a single trail pedestrian and view corridor through the dunes.
- In collaboration with the Western Coastal Board and the Foreshore Management Committee, investigate the feasibility and impact of initiating a program to better manage or eradicate marram grass (*Ammophila sp.*) from the foreshore and dune area and reintroduce indigenous grass and groundcover species, in order to reinstate a more natural dune system, slow (or potentially reverse) the growth of the dunes, and provide improved habitat for native fauna.
- In collaboration with the Western Coastal Board and the Foreshore Management Committee and independently of any programs to eradicate marram grass, reintroduce further indigenous plant species, favouring those that are stronger competitors and would be able to co-exist with marram grass.

- Investigate the need for beach and dune stabilisation by way of a sea wall or other measures, particularly to the north of Apollo Bay where erosion is currently greatest.

Views and vistas

The ability to view the sea, coast and coastal features is highly valued by the community and visitors to the area. Views to the Otway foothills from the coast and across the Barham River floodplain, as well as views from the foothills over the settlements and coastline, are also important. (The *Landscape Setting and Environment* Map identifies these key views.)

While private views cannot always be protected or guaranteed, public viewpoints need to be recognised and protected. The availability of these views from public spaces such as the beach and foreshore, the town centre, streets and from the foothills above, contribute to the identity of each township. Key viewlines, vistas and landmarks are also important in assisting in orientation and way-finding.

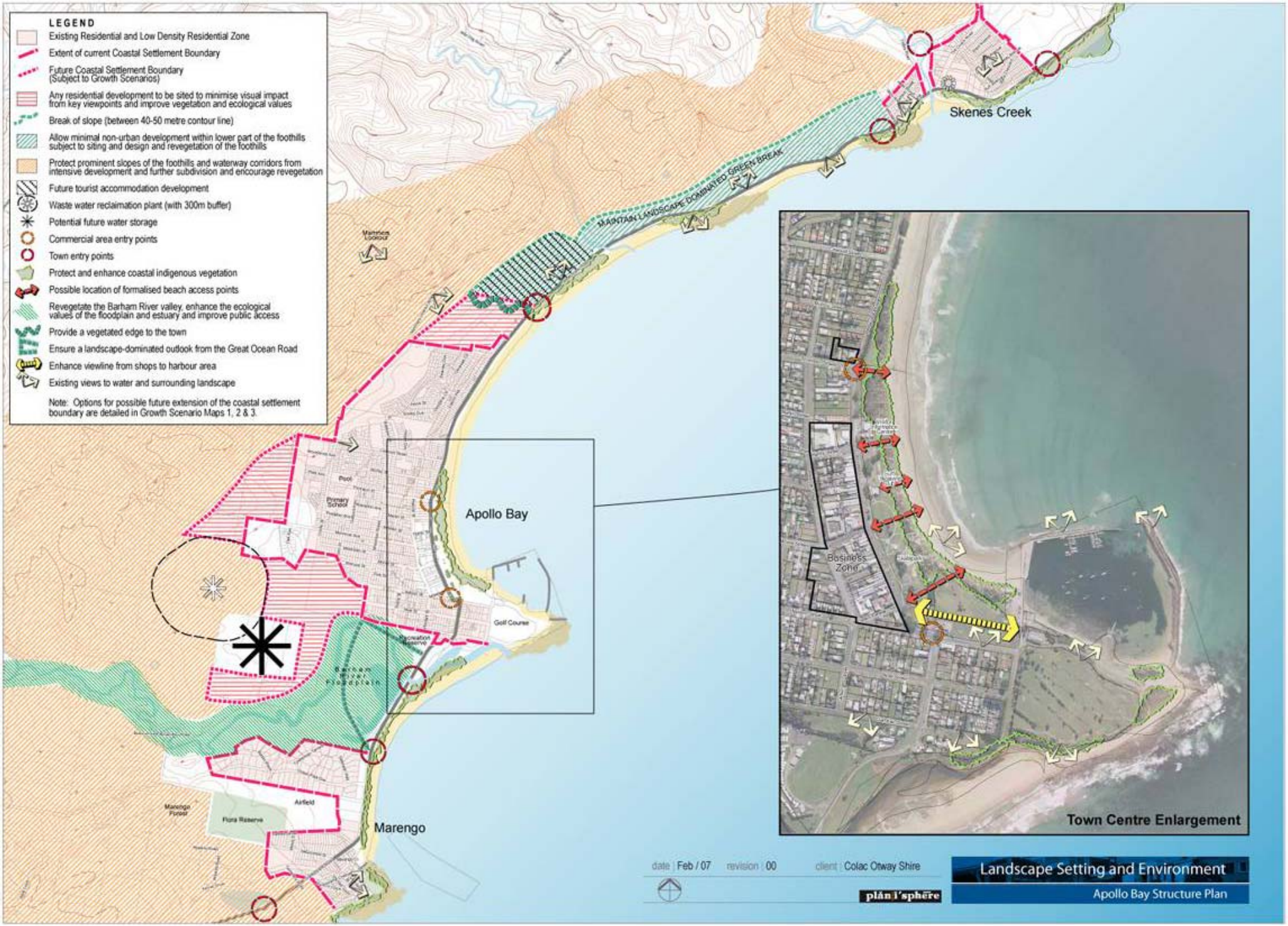
Objective

Protect and enhance the significant views and vistas available from the settlements, the beach and the harbour, as well as the views available from key vantage points in the hills above the Study Area.

Strategies

- Maintain public views to the coast and sea from the settlements.
- Strengthen viewlines between Apollo Bay town centre and the harbour.
- Retain and strengthen key vistas and landmarks that assist in way-finding, in particular:
  - Vistas of the dunes and sea at the end of streets that run perpendicular to the coast (ensure these vistas are not obscured by new foreshore development).
  - Towards landmarks, such as the statue at the southern entrance to the commercial and retail area of Apollo Bay, and towards new built form or landscape elements at landmark sites.
- Provide adequate building articulation and intermittent gaps between upper levels (in particular third storeys) of new buildings in the town centre of Apollo Bay, to enable glimpses of the hills from the foreshore and beach.
- Ensure revegetation of hills retains views from key public viewing points, in particular Marriners Lookout.
- Maintain an undeveloped view corridor from the Great Ocean Road and/or Gambier St across the Barham River and floodplain to the foothills, to ensure the meandering path of the river can be interpreted from these viewing point/s, and to maintain the “green” break between the settlements of Apollo Bay and Marengo.

- Recognise the role of built form in improving vistas or providing a focal point or terminal for key vistas, and encourage new development in key locations to consider and respond to this role, particularly:
  - On the hill visible from the southern approach to Apollo Bay (between Gambier St and Nelson St).
  - At the change in direction of the Great Ocean Road at the southern end of the commercial area of Apollo Bay (Nelson Street frontage).
  - At the harbour and Point Bunbury.


LEGEND
Existing Residential and Low Density Residential Zone
Extent of current Coastal Settlement Boundary
Future Coastal Settlement Boundary (Subject to Growth Scenarios)
Any residential development to be sited to minimise visual impact from key viewpoints and improve vegetation and ecological values
Break of slope (between 40-50 metre contour line)
Allow minimal non-urban development within lower part of the foothills subject to siting and design and revegetation of the foothills
Protect prominent slopes of the foothills and waterway corridors from intensive development and further subdivision and encourage revegetation
Future tourist accommodation development
Waste water reclaimation plant (with 300m buffer)
Potential future water storage
Commercial area entry points
Town entry points
Protect and enhance coastal indigenous vegetation
Possible location of formalised beach access points
Revegetate the Barham River valley, enhance the ecological values of the floodplain and estuary and improve public access
Provide a vegetated edge to the town
Ensure a landscape-dominated outlook from the Great Ocean Road
Enhance viewline from shops to harbour area
Existing views to water and surrounding landscape
Note: Options for possible future extension of the coastal settlement boundary are detailed in Growth Scenario Maps 1, 2 & 3.
Skenes Creek
MAINTAIN LANDSCAPE DOMINATED GREEN BREAK
Mariners Lookout
Apollo Bay
Pool
Primary School
Golf Course
Recreation Reserve
Barham River Floodplain
Airfield
Marengo Forest
Flora Reserve
Marengo
Business Zone
Town Centre Enlargement
date | Feb / 07
revision | 00
client | Colac Otway Shire
plan i sphere
Landscape Setting and Environment
Apollo Bay Structure Plan

B. The Size of the Settlements

The Great Ocean Road Region Strategy (GORRS) identifies Apollo Bay as a 'strategically located coastal settlement with the capacity for growth beyond its current boundaries'[13]. It also notes that growth in Apollo Bay 'presents an opportunity to create best practice future urban form that responds to the landscape around it.' There are rezoning requests currently before the council that propose to extend residential development beyond the current boundaries.

Skenes Creek and Marengo have not been designated as growth areas in the Great Ocean Road Region Strategy, and their current available land supply is limited to vacant, infill land. There are no shops or services in either settlement, which means that residents have to travel to Apollo Bay for these needs. For these reasons, both settlements are considered to have less potential for future growth.

An analysis of the landscape constraints for each settlement and an assessment of the infrastructure capacities for Apollo Bay has been undertaken to consider the potential for further growth.

Physical and landscape constraints to expansion

Each of the settlements and the surrounding hinterland is included in Precinct 2.4 of the Great Ocean Road Region Landscape Assessment Study (GORRLAS). The study has identified this landscape as being of National Significance and recommends the application of planning controls to provide further protection. It also sets future directions for the precinct and landscape objectives to achieve these directions.

The directions emphasise amongst other things, the need to retain and protect the 'dramatic intersection of landscape 'edges,' check 'ribbon development and inappropriate development on hill faces,' and the potential to 'further define' settlement edges. Each of these directions could impact on the future growth of the three settlements.

The settlement boundary shown on the *Size of the Settlements* map has been determined through a variety of factors, including landscape impacts such as the 'break in slope' where the land rises sharply, which lies between the 40 and 50 metre contour line, as discussed below. This line provides a firm limit to growth over the life of the Structure Plan. Determining the extent of growth below this break of slope is another component of the Structure Plan, which is tackled in part in the Growth scenarios section below. An important aspect in determining the settlement boundary is ensuring that it defines the extent of the urban area of a settlement, including urban land uses such as residential development, low density residential development, industrial and commercial uses. A settlement boundary should therefore not encompass any land which is not intended to be used for urban purposes and which should not appear to be urban in form.

The GORRLAS recognises the importance of settlement or township edges in this area and provides a future direction that identifies the potential to further define the edges. It also provides an objective that seeks 'to retain the dominance of an indigenous natural landscape in coastal areas, between settlements, particularly from the Great Ocean Road.'

[13] Great Ocean Road Region Strategy, August 2004, DSE

Natural features, such as a creek, public open space or areas of environmental or landscape significance, can assist in defining a boundary to a settlement. However such features are not always appropriate to this task, and all factors including in the case of the Study Area, demand for residential land and broader landscape issues, must also be taken into account.

State Government policy, as set out in Clause 15.08 Coastal Areas within the State Planning Policy Framework of all Victorian Planning Schemes, states that

"Planning for coastal areas should:

- *Encourage urban renewal and redevelopment opportunities within existing settlements to reduce the demand for urban sprawl.*
- *Avoid linear urban sprawl along the coastal edge and ribbon development within rural landscapes and preserve areas between settlements for non-urban use.*
- *Protect identified visually significant landscapes, views and vistas in coastal areas*
- *Protect non-urban areas for their visual landscape, environmental, agricultural and recreational qualities.*
- *Retain the existing subdivision patterns and non-urban uses between settlements.*
- *Identify and avoid development in areas susceptible to flooding (both river and coastal inundation), landslip, erosion, coastal acid sulfate soils, wildfire or geotechnical risk.*
- *Avoid development within the primary sand dunes and in low lying coastal areas.*
- *Avoid disturbance of coastal acid sulfate soils."*

This is also further reiterated in the DSE VPP Practice Note *Implementing a Coastal Settlement Boundary, October 2006.*.

Apollo Bay

There are a number of natural features that could potentially limit the outward expansion of Apollo Bay. Some of these features provide physical constraints to development (in addition to the environmental constraints which are discussed in *Landscape Setting and Environment*) and others form an important part of the landscape setting.

The Otway foothills to the west provide a scenic backdrop to the town, and feature in many long distance views. Feedback from members of the community has indicated that the foothills are highly valued and should be protected.

The 40 metre contour line, which is located close to the base of the foothill and just below where the slope increases substantially, has been adopted by some in the community, as a notional benchmark above which development should not expand. This 40 metre benchmark was identified in the previous Structure Plan prepared for Apollo Bay in 2000, however this plan has not been implemented into the Planning Scheme and current residentially zoned land already extends beyond this line at some points.

The dramatic increase in slope adds to the impressiveness of the hills and the perception of landscape dominance. Defining the 'break in slope', the point at which the slope increases substantially is an important challenge addressed in the Structure Plan. The 'break in slope' has been mapped and falls between the 40 to 50 metre contour. In areas where this break in slope abuts an urban area, landslip issues may need to be addressed by providing a buffer between the break in slope

and new development. This could be achieved by the shared pathway which is proposed to circumnavigate the Apollo Bay township (discussed further in *E. Access*). Outside the town boundary between Skenes Creek and Apollo Bay this is not a concern due to the objectives and strategies for ensuring that development take place midway between this 'break in slope' and the Great Ocean Road.

Some limited development in the foothills is unavoidable due to the zoning of land and the development potential that go with that – the existing Rural Conservation Zone allows the construction of a dwelling and some other tourist related uses in some circumstances, and it would not be possible to propose a blanket prohibition on this type of development. The Purpose of the Rural Conservation Zone contains clear indications of the intent of the zone – that is to conserve and enhance the landscape and environmental values of the area. The application of the Significant Landscape Overlay as recommended in the GORRLAS will further reinforce the protection of landscape qualities.

The Otway Foothills behind Apollo Bay

The Barham River floodplain to the south of the township provides a contrasting landscape element to the foothills, and a landscape break between Apollo Bay and Marengo. The intersection of the various landscapes is recognised in GORRLAS as an important characteristic to retain in this area.

The low-lying land in this area is subject to flooding so residential development would currently be limited to the more elevated land. A development proposal for this area seeks to overcome the constraints posed by flooding risk, with residential allotments proposed to be located on raised platforms to ensure flooding of housing does not occur. The proposed development would comprise 537 residential allotments, a golf course, clubhouse, resort and significant amounts of open space and revegetation and if developed would occupy the entire gap between Apollo Bay and Marengo. However, the development is intended to be clustered and vegetated to maintain landscape dominance.

The Barham River Floodplain

There are few physical constraints on the northward expansion of Apollo Bay, although this could only occur in a narrow strip between the 'break in slope' of the foothills and the Great Ocean Road. The land is generally cleared and slopes towards the Great Ocean Road from the foothills. However, this land provides an important and substantial 'green break' between Apollo Bay and Skenes Creek with only a small number of dwellings and holiday units ribboned along the Great Ocean Road frontage. While there are no physical constraints to expansion in this direction, any extension of the urban area of Apollo Bay would need to maintain this important break.

There is a current development proposal to expand the town north of Marriners Lookout Road and provide an additional 115 residential allotments. The proposal is to site housing generally below the 40 metre contour line (below the 'break in slope'), and incorporate open space above this point as well as adjacent to Marriners Lookout Road. The development plan indicates that extensive vegetation would be proposed for open space and within private allotments, to assist in screening the development from views from the township and the Great Ocean Road.

Wild Dog Creek was raised as a potential boundary to the settlement of Apollo Bay in the Panel Report for Amendment C17[14], although the previous Apollo Bay Structure Plan[15] identified a boundary between Marriners Lookout Road and Wild Dog Creek. Community consultation including feedback from land owners adjoining this identified settlement boundary revealed varying opinions about the most suitable location. Some argued that the boundary should be Wild Dog Creek as this is a natural boundary, while others, including DSE, suggested that the boundary should be Marriner's Lookout Road unless a policy basis can be provided for identifying an alternative boundary.

As the current urban area extends to the north beyond Marriners Lookout Road to the end of Pisces Caravan Park, and the area to the rear of this is largely shielded from view from the Great Ocean Road and the beach, it is considered appropriate that this should form the long term extent of urban growth. Allowing urban development to continue beyond this to Wild Dog Creek would result in a substantial proportion of the break between Apollo Bay and Skenes Creek becoming urbanised with ribbon development.

However, while the extending the settlement boundary to the northern edge of Pisces Caravan Park is considered appropriate, the staging of the release of land, as set out below, makes it clear that this area should not be developed in the short term until existing residential zoned land is substantially taken up, significant infill and consolidation of the Apollo Bay urban area has taken place, and other areas identified within the settlement boundaries that are closest to the Town Centre are developed. This may need to be reviewed if land close to the Apollo Bay Town Centre proves to have too many environmental or economic constraints to development, and as a consequence is no longer suitable for development.

Other non-urban tourism related uses may be appropriate in this location beyond the settlement boundary, however strict criteria would need to be met to manage this development to ensure, for example, that it does not appear to be urban and does not require significant new infrastructure. See criteria contained in *Development between the settlements* above for further details.

[14] Amendment C17 (Marriners Lookout Road, Apollo Bay), Panel Report, August 2005.

[15] Colac Otway Strategic Development Master Plan – Apollo Bay Structure Plan, PPK Environment and Infrastructure Pty. Ltd., October 2001.

Skenes Creek

There are a number of natural features that could limit broad-acre subdivision opportunities. Like Apollo Bay, the Otway Foothills to the north of the settlement provide an attractive backdrop. Residential areas are generally settled in the lower portion of the hills, which is also the flattest part. It is important to maintain the natural appearance on the steepest part of the hill which could be achieved by limiting residential opportunities in this area.

To the east and west of the settlement there are few physical constraints to expansion, although to the east development may be limited by provision of sewerage by Barwon Water. Land is mostly cleared and of similar slope to established residential areas.

Land to the east of Skenes Creek

Marengo

Dense areas of native vegetation at the western, southern and the northern edge of the settlement provide a major constraint for further residential expansion. A large proportion of land at the eastern edge and beyond the low-density residential area to the north is subject to flooding. As discussed above, a development proposal includes the flood prone land to the north.

Objective

Utilise natural boundaries, where appropriate, to define settlement edges and set limits to urban expansion.

Strategies

- Apollo Bay: protect the foothills to the west, and ensure the ecological and drainage functions and landscape values of the Barham River valley are maintained or improved.
- Skenes Creek: protect the steeper part of the Otway foothills to the north.
- Marengo: protect the dense vegetation to west, south and north.
- Utilise policy to define settlement edges where a clear and suitably located natural boundary is not available.

Settlement edges or boundaries

The identity of a settlement is influenced by its edges and the way it intersects with the landscape surrounds. A 'hard' edge to a settlement generally consists of residential development that stops abruptly before the landscape hinterland. This type of edge makes it easy to distinguish where the town finishes and the landscape hinterland begins, and it also provides a contrast with the landscape.

A 'soft' edge to the settlement usually involves low density or rural residential development up to a landscape edge, or development ribboned out along a narrow strip. This type of edge can help to provide a 'soft' transition from residential areas to landscape, and can be an effective treatment where settlements merge into bushland areas. However, it can also make it harder to distinguish where the town begins and ends, particularly in more open landscapes and where the lower density or rural residential development is inconsistent or has breaks. Low density development can also diminish the naturalness of a landscape setting if it is developed inappropriately, contains visually dominant built form elements, or is not screened with vegetation.

Having regard to the importance of the landscape between the settlements, as discussed in other sections, coupled with the fragility of the landform, environmental issues such as weed management and the difficulty in servicing lower density development, a contained form of development that has a hard edge to the townships is highly preferable in the Study Area. While there may be latent demand for larger 'lifestyle' lots, the area along the Great Ocean Road is not appropriate for this form of development, and it should be discouraged. Other opportunities may be found in the hinterland areas of the Shire.

Objective

Define and maintain a hard edge to the urban area of each of the three settlements, particularly when viewed from the Great Ocean Road.

Strategies

- Contain urban development within the coastal settlement boundary as defined on the *Size of the Settlements* Map, and allow for urban expansion in areas as indicated only when further land supply is required. (Refer to *Accommodating Future Growth* for guidance on increasing land supply).
- Restrict further greenfield low density housing opportunities within and outside the coastal settlement boundary.
- Utilise landscaping to soften and screen the hard urban edge, and to clearly differentiate urban from rural.
- Require that any extension to the existing urban area beyond Marriners Lookout Road to the north of Apollo Bay will:
  - Form a hard edge to the northern extent of the development, creating a boundary to the urban area of Apollo Bay.
  - Provide strong informal landscaping along this edge to differentiate between urban and rural.
  - Restrict development to below the 40-50 metre contour line, as defined on the Landscape Setting and Environment Map.

  - Utilise new landscaping and canopy trees within the development to screen the development from views from the Great Ocean Road and other key vantage points.
  - Avoid a low density form of development.
- Ensure that any proposal for development and use of land outside the coastal settlement boundary to the north of Apollo Bay is non-urban in appearance and function, and that any tourism related proposals meet the criteria contained within *Development between the settlements* above.

Capacity of existing infrastructure

An analysis of existing physical infrastructure for Apollo Bay, Marengo and Skenes Creek was undertaken to assess the capacity of infrastructure to accommodate future growth. The analysis demonstrates that some components of the infrastructure are under strain, close to capacity, or in need of renewal, in particular water storage and electricity supply. New development places increased pressure on this infrastructure, therefore consideration needs to be given to making the most efficient use of existing infrastructure, as well as exploring options for seeking a contribution from developers to assist with the installation of new infrastructure. Reducing the strain caused by new development on infrastructure through the use of Ecologically Sustainable Design and Water Sensitive Urban Design also needs to be given a high priority.

Roads

The existing public road network is constructed to an acceptable standard for future urban development. Recent subdivisions incorporate kerb and channel and underground drainage as part of the road network. Unsealed shoulders form part of the historical road network.

Additional road reserves will be required to service future development and road construction standards will be required to adhere to Colac-Otway Shire construction standards. The following road issues are important for new roads:

- Water sensitive urban design principles e.g. bio-retention areas and swales should be incorporated into road design.
- Unsealed shoulders should be avoided to reduce sediment load into waterways.

Water

Barwon Water is the potable water service provider to Apollo Bay. Their figures indicate the current average annual demand for the Apollo Bay / Skenes Creek supply system jumped significantly during the 2000 – 2002 period. In November 2006, Barwon Water advised that the existing demand for water of 383 mega litres currently outstrips supply capacity of 300 mega litres. As a result of the incongruence between demand and supply, water restrictions and other measures were introduced by Barwon Water. The sudden increase in demand was partially attributed to seasonal conditions that occurred during that period and, importantly, rapid development that has occurred and extended tourist seasons.

The expected changing demographics of Apollo Bay, more permanent residents and an increase in coastal development are factors that will influence future demand. With the existing catchment yield currently under stress, a new resource for the Apollo Bay / Skenes Creek system is required. Water resource management and water conservation measures are critical aspects of future urban growth.

It is recognised by the supply authority that the present water storage system and reticulated water supply that exists in Apollo Bay is inadequate and requires urgent upgrading. The urgency of the upgrade has been precipitated by the effects of the recent drought and an increased demand for water resulting from recent development in the Apollo Bay area and the increase in the town's permanent population.

Barwon Water has been reviewing the present system and as a result a number of water storage improvement works have been planned.

In addition, the Barwon Water future water supply program involves the construction of a high level water supply reserve. The facility is necessary to provide service to both existing and future urban development in the northern part of Apollo Bay and Skenes Creek.

Feedback from Barwon Water on the draft Structure Plan was that the planned expansion of the existing water storage and transfer rates would be able to accommodate the projected population growth if conservation measures (and contingency plans) are implemented. However, since this time Barwon Water has been investigating sites for further water storage and has determined that the land immediately to the south of the existing extent of Apollo Bay, on land currently within the Great Ocean Green development site, is the only site capable of accommodating a facility of sufficient capacity to serve the future needs of the area. This site can accommodate a storage facility of 250 mega litres. The only other possible site under investigation, outside Marengo, could only accommodate 50 megalitres which will be inadequate for the needs of the townships.

Barwon Water advises that in addition to the provision of additional water storage capacity, a water conservation program should be established. There are two options; undertake a standard water conservation program, or undertake a comprehensive water conservation program. A standard program would assure water supply to a smaller development increase, while a more comprehensive approach could meet the forecast growth. The second option is preferred by Barwon Water, and is a more strategically sound approach having regard to long term projections of climate change. Water conservation initiatives have been identified by Barwon Water and are included within the strategies below. These can be implemented through the planning system as well as through educational programs and incentives, and may also involve the use of local laws to require installation of water conservation measures through the building permit system.

During the Panel process for Amendment C29, it was directed that development of the Great Ocean Green proposal should not commence until potable water can be made available to the development. This condition should be applied to all new development outside existing residential zoned land to ensure the orderly planning of the area. Barwon Water has also advised that an Environmental Significance Overlay should be applied to protect the Special Water Supply Catchment (to be declared).

Sewerage

Reticulated sewerage is currently available to Apollo Bay and Barwon Water is the sewerage service provider. Barwon Water's sewage treatment plant (Water Reclamation Plant or WRP) is located west-south-west of Apollo Bay township and treated sewage is discharged via an ocean outfall at Marengo.

Barwon Water applies head works charges for sewerage to all developments. This charge is essentially for augmentation works and any other works necessary to enhance the overall sewerage system as necessary to support development. The Sewerage Headworks Charge is used to upgrade the sewerage system as necessary to support development.

The Apollo Bay WRP currently treats sewerage flows from Apollo Bay and Marengo, and will soon also treat flows from Skenes Creek. Barwon Water has advised that the Skenes Creek sewerage system is currently under construction and is expected to be commissioned by 2007. Augmentation of the current WRP is planned to occur to accommodate a peak summer population of 11,340 and a non-peak population of 2,717. It is noted that these augmentation works will have to be brought forward as required if the permanent population reaches 4,000 by 2021.

Effluent reuse has an important role to play in sustainable water resource management and could be considered for Apollo Bay. Water efficiency options and effluent reuse options can often complement each other in reducing the total cost of water provision to the settlements. The Great Ocean Green proposal would utilise recycled water for watering the golf course, however it should be noted that this may impact on the water contingencies included by Barwon Water in the event that sufficient new water storage is not able to be constructed. Greater storage capacity for recycled water may then need to be provided.

Water use efficiency can be achieved through demand management options i.e. using water efficient fittings, education in water use, retrofitting existing fittings with water efficient fittings and water source substitution i.e. installation of rainwater tanks and grey water treatment and reuse. The installation of water saving devices in all new development within the Apollo Bay area is also supported by Council.

A 300 metre buffer zone is required by EPA guidelines between the WRP and the nearest residential building, and Barwon Water strongly encourages development to occur outside this zone.

Gas

No reticulated Gas exists to Apollo Bay, Marengo or Skenes Creek. Bulk LPG storage facilities are currently utilised by heavy users. An opportunity exists to install a local area reticulation network using LPG or LNG as the energy source. Options for reticulated natural gas are also being explored.

Electricity

The local electricity supply is provided by Powercor Australia Limited and electricity supply is currently available across Apollo Bay, Marengo and Skenes Creek. The provision of electricity to any specific site or stage within the Apollo Bay area would be largely dependant on the type and size of the proposed land use and its relationship to existing infrastructure.

Powercor Australia's current policies provide for contributions toward the cost of new electrical connections based on the economics of each supply request.

Anecdotally, the settlements experience frequent outages of power, particularly during the summer months when demand is greatest. However, the reliability of power supply has improved in recent years. The Directions Report for Amendment C29 suggested that there is no evidence to suggest that this presents and insurmountable problem. For the Great Ocean Green proposal, and it was directed that development not commence until power is supplied to the site.

Telecommunications

Telstra and Optus both have in place copper and fibre optic networks within the study area. Telstra has in place a procedure that identifies new developments. Telstra would plan to provide services as per the requirements of the individual development. Detailed designs are only produced within Telstra when an infrastructure shortfall in Telstra's network is identified following the issue of a project brief.

Apollo Bay telephone exchange supports ADSL broadband connection via the in ground copper network. In addition Telstra wireless broadband network is available through the CDMA network. The Apollo Bay area is covered by Optus and Telstra CDMA and GSM networks.

Environmental

Facilitating sustainable environmental growth and development within Apollo Bay is an important challenge for the Structure Plan to address. Currently, Council is responsible for:

- Urban stormwater management;
- Co-ordinating technical and environmental compliance of developments;
- Roadside conservation;
- Updating environmental policies;
- Community liaison regarding environmental issues, and
- Waste management.

Importantly, the Corangamite Catchment Management Authority is responsible for floodplain management.

As development pressure increases, the opportunity for the integration of environmentally sensitive design in the development requires careful consideration. Apollo Bay provides an excellent opportunity to integrate and showcase water sensitive urban design principles in new development.

Refer to the *Environmental Sustainability* section of this Plan for further information.

Stormwater / Drainage / Flooding

Apollo Bay has a developed system of underground stormwater drains. Any addition to the network requires careful planning to ensure improvements to the overall quality of urban stormwater runoff discharged into local waterways. The use of Water Sensitive Urban Design initiatives in new development and in existing urban areas can reduce the strain on existing infrastructure, by holding flood peaks on site, filtering particulates and improving the quality of water entering the stormwater system, and can also assist in reducing the need for potable water use in developments through reuse of stormwater.

The Barham River flood plain inundates an area to the south west of Apollo Bay. Existing developments along Ocean Park Drive, Marengo, and the western boundary of Apollo Bay are subject to inundation. There may be flooding and drainage implications arising from the level of development envisaged within the Apollo Bay area.

Objective

Ensure that urban development results in the efficient utilisation of existing infrastructure and minimises the requirements for new infrastructure.

Strategies

- Encourage new development to occur firstly in areas with existing infrastructure provision, and that any new infrastructure is efficiently provided and utilised.
- Encourage ecologically sustainable development that minimises water and energy requirements.
- In consultation with Barwon Water, ensure that an adequate water supply capacity is available prior to the consideration or approval of rezoning applications for further expansion of urban areas within the identified coastal settlement boundary.
- Support the development of additional off-stream water storage to safeguard and facilitate future water supply to sustain the increased permanent and visitor population.
- Ensure that any development that would result in an extension of the urban area within the coastal settlement boundary is planned in collaboration with Barwon Water to ensure the capacity to provide sewage treatment and recycled water as required.
- Continue to prepare a Development Contributions Plan Overlay to enable the collection of a developer contribution for new infrastructure provision, and in the meantime negotiate with individual developers to ensure the Council and community is adequately compensated for resulting off-site infrastructure impacts.
- Encourage or require a high level of sustainability initiatives in the use and development of buildings, to reduce strain on existing infrastructure and the need for new infrastructure, in particular through Ecologically Sustainable Design, water conservation measures and Water Sensitive Urban Design, as set out in the box on the following page.
- Encourage new development to incorporate on-site effluent treatment facilities, where access to reticulated sewerage is not available.
- Discourage development of residential buildings within 300 metres of the Apollo Bay Water Reclamation Plant.
- Introduce a schedule to the Environmental Significance Overlay into the Colac Otway Planning Scheme for Barwon Water purposes to apply to the Special Water Supply Catchment (to be declared) in order to protect the catchment and ensure water quality.
- Establish a program of regular communication with service authorities on the strategic direction for the settlements to ensure that service and infrastructure provision is able to accommodate proposed growth.
- Ensure that proposals to extend urban areas within the coastal settlement boundary takes place only when power supply capacity is available and is provided to the site prior to commencement of development.

Sustainability Initiatives

Ecologically Sustainable Design

Ecologically Sustainable Design in new residential, commercial, industrial and community/civic buildings and renovations/extensions to existing buildings should incorporate sustainability principles into the siting and design of the building, as well as the selection of materials, fittings and appliances. This should include:

- Energy efficient and solar passive design
- Effective use of insulation, double glazing and thermal mass
- Solar hot water/electricity
- Water efficient appliances, rainwater capture and reuse
- Innovative greywater and potentially blackwater treatment systems, and reuse for non-potable purposes
- Use of sustainable building materials (e.g. recycled and sustainably produced timber, materials with low embodied energy, products made from recycled materials)
- Smaller dwellings, which require fewer resources to construct and operate.

Water Conservation

Encourage or require water conservation measures through planning policy, local law, restrictive covenant and educational material in new and existing developments (residential, commercial and industrial), in consultation with Barwon Water. This should include:

- Providing support to Barwon Water in the delivery of educational programs and material to the community on water conservation.
- Ensuring that new residential subdivisions achieve a high level of compliance with Clause 56.07 Integrated Water Management in the implementation of water conservation intiatives, to achieve a high level of sustainabiliy in water use and management to the satisfaction of Barwon Water and Council.
- Consideration to the expansion of the existing 5 star requirement for residential development to stipulate a compulsory rainwater tank connected to all sanitary flushing systems, hot water services, washing machine and laundry taps for individual properties, implemented through a Section 173 Agreement or Local Law. The tank capacity, roof catchment area and appropriate filtration devices should be determined in consultation with Barwon Water.
- Investigate the feasibility and effectiveness of introducing a Local Law to require water conservation measures to be incorporated into existing as well as new domestic, commercial and industrial premises, particularly to ensure that:
- Spa baths are operated only using water collected in rainwater tanks.
- All new homes have a 3 star (9 litres/minute) showerhead and 3 litre/4.5 litre dual flush toilets.
- Industrial and commercial properties install rainwater tanks for use on landscaping and other operations not requiring potable water.

- In collaboration with Barwon Water, investigate opportunities for the provision of incentives or rebates to encourage the water conservation and the installation of water efficient appliances, with a particular focus on retrofitting existing residences for greater water efficiency (e.g. water saving showerheads, dual flush toilets, rainwater tanks, grey water recycling systems etc.).
- Develop and coordinate an information and rebate/grant database within Council which is publicly accessible, and promote it to the community.

Water Sensitive Urban Design (WSUD)

New development (residential and commercial), subdivision, road and car park construction and streetscape works should incorporate WSUD principles as set out in Chapter 5 of Urban Stormwater: Best Practice Environmental Management Guidelines (CSIRO 1998), in particular:

- Protect and enhance natural water systems within developments (creeks, rivers, wetlands).
- Protect and improve the quality of water draining from urban developments into creeks, rivers and the ocean.
- Integrate stormwater treatment into the landscape so that it provides multiple benefits (including water treatment, wildlife habitat, public open space).
- Reduce runoff and peak flows by temporarily storing stormwater on site (for reuse) and minimising impervious surfaces.
- Add value while minimising development and drainage infrastructure costs.
- Reduce the demand for potable water by capturing and reusing stormwater (e.g. on gardens, toilet flushing).

Applying these principles is likely to require some combination of the following techniques for the best possible outcome, in combination with the water conservation measures:

- Grassed or landscaped swale drains – to slow the movement of runoff and provide greater opportunity for infiltration before stormwater leaves the site.
- Bio retention systems and infiltration trenches - to reduce flood peaks, hold and filter runoff to improve water quality, enable infiltration to groundwater.
- Wetlands - provides tertiary treatment system, water storage and detention, opportunities for reuse of water as well as improved habitat values.
- Rainwater tanks - for harvesting and reuse of stormwater, reducing demand for reticulated potable water use (e.g. for use on gardens, toilet flushing, laundry etc.)
- Greywater or runoff harvesting and reuse – primary treatment and reuse on site for non potable uses (garden use or toilet flushing).
- Minimising areas of hard paving and using porous pavements – reduces runoff, enables increased infiltration to ground water.
- Selection of water efficient plant species, particularly indigenous plants, to reduce the amount of water needed for landscaping.

Consolidation of the settlements

Demand for housing is growing, and will continue to grow due to policy factors, including the Great Ocean Road Region Strategy and practical factors such as the Geelong By-Pass, which will shorten the trip to Melbourne. To achieve the twin objectives of containing development and maintaining some affordable housing, a housing strategy that caters for a diverse range of housing types including medium density housing needs to be considered.

While there is currently a relatively small permanent population of 1190 people in Apollo Bay, which increases substantially during peak periods, Apollo Bay saw an annual growth in population of 4.3% between 1996 and 2001. This is a significant increase on the annual growth of 1.5% per year seen in the previous 20 years. This growth has been mostly in the 50-59 year age group, and this is reflected in the population profile, which is significantly older than the State average. Population projections for the Great Ocean Road-Otways statistical area, including the Apollo Bay region, indicate that there will be a 28% increase in the total population between 2001 and 2021 (increase from 2,897 to 4,003 people in the region).[16]

Apollo Bay is the largest town in the region and is designated for further growth, so it is expected that it will accommodate a large proportion of this increased population. It is estimated that this increased population will result in a 35% increase in households (1,204 in 2001 to 1,861 in 2021), although the increase in dwellings will be lower (26% increase), which indicates a proportional increase in permanent residents compared to absent holiday home owners.

At the same time, household sizes are dropping, and when considered in light of the ageing population this has further implications for the type of housing that will need to be provided, with smaller, lower maintenance properties likely to increase in demand. Medium density housing located close to the town centre of Apollo Bay can assist in meeting this need, providing convenient access to shops and services and potentially a more affordable option. Younger people might also like to sample the lifestyle of living 'on top of the action' in a shop-top flat, or in a unit close to the town centre.

In addition to meeting the needs of the increased permanent population, it is likely that medium density housing will continue to be in demand, in the form of tourist accommodation or holiday apartments, in locations close to the water and the shops, or in areas with a unique landscape setting. There is also a significant demand for camping and caravan facilities, and these facilities should continue to be provided in each of the settlements to maintain the range of accommodation options.

The residential allotments around the centre of Apollo Bay are large by urban standards averaging around 1200-1400sqm and have potential for further intensification. Most medium-density housing types can, with sufficient direction and skill, be designed to be compatible with the character of established low-density residential areas in terms of design, height, setbacks, and landscaping. However in terms of a housing strategy, it is important to identify where medium density housing opportunities should be available and where lower density (e.g. > 450 sq m) opportunities should be available.

[16] i.d Consulting, 2005

Within the commercial area, additional levels could be added to shops or existing upper storeys could be converted to provide housing opportunities. These additions and alterations to existing buildings would have little impact on the existing streetscape. These dwellings would, however, need to be designed to ensure residents are adequately protected from the inevitable noise and other amenity impacts of the commercial area.

The lack of services and facilities in Skenes Creek and Marengo could limit opportunities for medium density housing that would benefit permanent residents. It is most likely that there will be demand for tourist accommodation in these settlements.

The minimum lot size and site coverage requirements introduced into Skenes Creek deliberately limits opportunities for medium density development. This approach is consistent with State and Local policy for Skenes Creek, which generally aims to limit growth in this coastal township.

The minimum site area per dwelling controls proposed in the Planning Scheme Amendment to implement the Apollo Bay and Marengo Neighbourhood Character Study would limit opportunities for medium density development in parts of Apollo Bay. This amendment has now lapsed, but given the consideration of an overall housing strategy approach for Apollo Bay and Marengo that provides medium density housing opportunities close to the town centre, to ensure a diversity of housing choice, it is appropriate to introduce a minimum area for subdivision controls in locations further from the town centre. The areas proposed in the Neighbourhood Character Study are still considered appropriate, although not necessarily on character grounds but more on housing strategy grounds.

As the need to increase land supply arises, the areas indicated on the *Size of the Settlements* Map for potential future extension of the coastal settlement boundary can provide space for ensuring more than a 20 year land supply over the life of the Structure Plan. This is based on dwelling yields in the proposed developments to the north of Marriners Lookout Road and between Apollo Bay and Marengo: the Great Ocean Green proposes 537 single housing lots, and Mariners Vue proposes a further 115 allotments, with a total yield of 652 lots. However, given that the only location for a future water storage facility is identified to be within the Great Ocean Green development site, this would be likely to significantly reduce this dwelling yield, as discussed below. In order to address this, and to provide for more affordable land, further land to the west of the town is identified. If the Great Ocean Green and Mariners Vue proposals were to proceed as proposed, this would more than double the existing residential land supply of approximately within the existing urban area across the three settlements, the majority being planned or completed broadacre subdivisions. It is noted that there may be some land within the urban area of Apollo Bay that is unlikely to become available in the near future due to land banking or unwillingness of property owners to sell or develop the land.

Given that a 10 year land supply is available, it is considered that development of the Mariners Vue site is required to meet longer term needs of the community and to address the demand for land close to the coast with views. It would be preferable if this land were not released until further infill development takes place however, in accordance with the criteria for the staging of the release of land discussed below. Although a higher yield would be appropriate to enable better use to be made of the land, this is constrained by environmental factors such as water supply and slope of land, and increasing the dwelling yield should not compromise the objective of establishing vegetation to screen the development.

The release of further greenfield land within identified areas for potential expansion of the settlement boundary will need to be considered carefully as it has the potential to compromise efforts to consolidate the town centre of Apollo Bay and achieve a more sustainable urban form, and could result in unwanted impacts on the landscape between the settlements and a sprawling urban form if not managed and staged appropriately. If there are ample development sites available, this discourages the redevelopment and renewal of lots closer to the town centre, due to the higher costs associated with demolition and redevelopment compared with greenfield development. It is also likely to result in areas of undeveloped land remaining in the existing urban area, which impacts on the contiguity of the settlement and results in more dwellings further away from the town centre than is necessary. If the supply of greenfield land is limited, redevelopment and consolidation of these sites becomes more economically feasible as the demand for land and housing rises in comparison to supply. This may also prompt landowners within the urban area to subdivide land as the financial return increases, enabling empty gaps in the urban landscape to be filled.

A balance will need to be found between ensuring affordability and housing choice through maintenance of land supply, particularly to ensure that local residents are not priced out of the market, and ensuring a diversity of housing and accommodation (including medium and high density housing) is provided and the town centre of Apollo Bay is consolidated.

Objective

Encourage infill development of medium density housing and accommodation within walking distance of the commercial area of Apollo Bay, to reduce the pressure to expand the urban area, and provide alternative housing choice.

Strategies

- Encourage medium density housing which:
  - Is located close to the Apollo Bay town centre services and facilities.
  - Is respectful of the character of the township.
  - Incorporates sustainability initiatives, as discussed in Environmental Sustainability below.
  - Adds to the diversity of housing types and sizes, including affordable housing.
  - Provides appropriate setbacks and landscaping to integrate the development with the existing or preferred neighbourhood character.
- Limit any further extension of the current residential boundaries of Apollo Bay within the coastal settlement boundary until there is a recognised need for additional greenfield land, in terms of demand and declining land availability, affordability and opportunities for medium and high density infill development. Ensure proposals to extend the urban areas within the coastal settlement boundary provide appropriate strategic justification for new subdivisions in relation to these indicators.
- Undertake annual monitoring of the take up of residential land to determine land supply in Apollo Bay and enable the release of further land within the coastal settlement boundary in accordance with the Growth Scenarios discussion and staging of the release of land (see below). Monitoring of indicators should include: new dwelling approvals, infill development in existing urban areas and projected population growth.

- Encourage the provision of low cost or affordable housing, particularly within larger developments.
- Investigate the magnitude of the need for low cost or affordable housing, and if considered appropriate, commence discussions with the Office of Housing and housing associations to identify options for the provision of social housing.
- Prioritise approval of future rezoning applications for residential purposes, within the coastal settlement boundary, according to the criteria below:

Criteria for the staging of the release of residential land within the coastal settlement boundary

Prioritise development of existing residential zoned land within the coastal settlement boundary particularly of Apollo Bay, but also Marengo and Skenes Creek, to encourage substantial take up of existing residential zoned land, and infill development at medium and higher densities close to the town centre of Apollo Bay.

After monitoring land take up, if it can be demonstrated that land supply has fallen to below 10 years supply *and* that water storage and supply is able to accommodate further urban growth, prioritise the release of new residential land within the coastal settlement boundary according to the principles below.

Priority should be given to applications to rezone land within the settlement boundary which:

- Is closest to the Town Centre of Apollo Bay to achieve a more compact urban form.

- Makes best of use existing infrastructure and services

- Where infrastructure does not already exist, ensures the most efficient provision of new infrastructure and services, or ensures that new development will be self sufficient in services that cannot efficiently be provided.

- Will result in minimal detrimental impact on ecological and landscape values by firstly developing land that has lower values.

- Will contribute to ensuring a supply of affordable land to meet local housing needs.

- Will deliver substantial community benefit e.g. through additional public open spaces and access, environmental/landscape improvements or the upgrade of existing open spaces and community facilities.

In making a decision in relation to an application to create additional residential land within the coastal settlement boundary, the proposal should on balance achieve a high level of compliance with these criteria.

These criteria should also be applied to staging within individual developments, to ensure the proper and orderly planning and development of the settlements

Tourism accomodation development between the coastal settlement boundary and Wild Dog Creek

The Apollo Bay Structure Plan has an objective of supporting the growth of tourism as a major employer of the region, with specific strategies (see Section D) including the encouragement of tourist accommodation within the coastal settlement boundary and outside the coastal settlement boundary in accordance with criteria contained in this structure plan. Encouraging the retention of caravan parks and camping facilities and providing other low cost accommodation options is also a key strategy for supporting tourism.

In terms of supporting the growth of tourism, the Structure Plan has specifically identified the harbour precinct master plan and aspects of the Great Ocean Green development as providing some tourism accommodation elements. To build on this, land between Pisces Holiday Park and Wild Dog Creek fronting the Great Ocean Road and below the break of slope has been identified as a site to provide for a future non-urban form tourism accommodation development, due to its location fronting the ocean and its proximity to the town centre of Apollo Bay relative to other non-urban areas. The site provides an opportunity to develop an integrated eco-tourism project which would support the tourism industry. The form of any such development on this site will be carefully controlled through the use of appropriate planning controls (e.g. appropriate planning scheme zone and overlay controls, section 173 agreements) to limit the use of the land to non-urban tourism type purposes.

A non-urban form tourism accommodation development can be located outside of the Coastal Settlement Boundary. The Planning Practice note titled “Implementing a Coastal Settlement Boundary” advises that the extent of the Coastal Settlement Boundary is to delineate the extent of future urban development. Hence non-urban development can be appropriately located outside of the Coastal Settlement Boundary.

Redevelopment of this site will need to address all other objectives related to maintaining the landscape setting, utilisation of existing infrastructure and consolidating the existing settlements, and will require that tourism accommodation development on this site is non-urban in form. Redevelopment of this site for non-urban form tourism accommodation will also be dependant on water supply being resolved and would not logically be able to occur unless the settlement boundary were extended to include the land within the Mariners Vue proposal and Pisces Holiday Park.

A set of criteria have been developed to assist the Council in determining the appropriateness of any applications for development outside the coastal settlement boundary at this location. These criteria can be inserted into the Planning Scheme to require that any new development proposal must demonstrate compliance with these criteria. Any proposed tourism accommodation development that meets the criteria below will be considered to comply with the State Planning Policy Framework and will be supported by Council.

Objective

Facilitate non-urban form tourism accommodation development on land between Pisces Holiday Park and Wild Dog Creek, outside the coastal settlement boundary.

Strategy

- Ensure that any tourism accommodation development on land between Pisces Holiday Park and Wild Dog Creek, outside the coastal settlement boundary meets the following criteria:

  Any proposal for rezoning and development of this site should:

  - Have minimal visual impact on the landscape by requiring that any new development:
    - Is set back substantially from the Great Ocean Road and from side property boundaries.
    - Is sited within the landform and reflects the slope of the site, to ensure the built form is recessive in the landscape context.
    - Sites buildings with existing or re-established vegetation and utilises informal new landscaping to screen the development from views from the Great Ocean Road and other public view points (including the harbour and Marriners Lookout), while highlighting the topographic features of the site.
    - Clusters buildings together, avoids single monolithic buildings, and uses modest, low profile building forms.
    - Minimises the impacts of features such as fences, property boundaries and driveways, and avoids highlighting these features through the use of formal landscaping or rows of trees (in particular conifer shelter belts) along their alignment.
    - Uses muted, coastal recessive tones and colours and non reflective materials to assist in blending the development into the landscape context.
    - Provides minimal, low impact signage.
    - Utilises low impact lighting, such as sensor lights/down lights, to minimise light spillage and visibility.
    - Avoids solid gateways along the Great Ocean Road and the use of solid fencing, particularly for property boundaries.
    - Avoids heavily manicured landscaped gardens close to the Great Ocean Road.
    - Uses indigenous vegetation in naturalistic planting patterns, in the revegetation of stream lines, swales and higher land.
    - Ensures that substantial revegetation with indigenous vegetation appropriate to the site takes place prior to the commencement of the development (and is protected throughout the construction period) to ensure effective screening of the development from views from an early stage.
    - Avoids the planting of non-indigenous vegetation, particularly where this would be visible from the viewing points outlined above.
    - Avoids level changes (cut and fill/excavation/building platforms).

- Demonstrate that the development:
  - Can be strategically justified and will meet an identified need for an accommodation or tourism facility in the Apollo Bay area.
  - Will bring overriding tourism and community benefits to the Apollo Bay area and the State.
  - Will provide overriding improvements to existing community facilities or infrastructure for the community of Apollo Bay.
  - Will provide significant environmental (natural environment and built environment) benefits to the Apollo Bay area.
  - Will not impose additional infrastructure and service requirements, particularly for water supply (i.e. will be self-sustaining and/or incorporate high levels of best practice sustainable development in the design and operation of the facilities).
  - Will provide for safe pedestrian access across and along main roads, particularly the Great Ocean Road.
  - Will provide adequate traffic management soultions for access to and from the Great Ocean Road.
  - Will integrate with adjoining land uses, and not cause detriment to the operation of legitimate uses of that land.
  - Will be for short stay tourism accomodation and associated uses, including, but not limited to, provision of caravan sites, tented accomodation sites, on site cabins, associated recreational facilities eg walking and cycling paths connecting to Apollo Bay, playground equipment, sporting facilities (eg tennis & basketball courts), swimming pool and associated commercial facilities (e.g small kiosk, tourist park office).

Growth Scenarios

In summary, there are three growth scenarios for Apollo Bay as a result of the lack of certainty regarding water storage availability and location. It is considered useful to identify these scenarios in order to provide the Council with a clear way forward regardless of the outcomes of the current negotiations and investigations.

If current and future water supply cannot be guaranteed by Barwon Water, no further land will be able to be rezoned for residential or tourist accommodation development, unless the development is able to be entirely self sufficient in relation to water supply.

Scenario 1

A 250 Megalitre water storage facility cannot be provided for the townships.

Should Barwon Water not be able to secure a sufficient water storage facility the growth potential of Apollo Bay will be severely curtailed. In this instance it is recommended that:

- No further land be rezoned in the Study Area, both within and outside the coastal settlement boundary, for residential or tourist accommodation related use, unless it can be demonstrated that the development will be completely self sustaining in relation to water requirements.
- Severe water conservation measures should be implemented for existing residential, commercial and industrial uses, and new dwellings / infill development within the existing urban area should be required to demonstrate

the highest level of water conservation techniques, fixtures and fittings, including water tanks and grey water recycling.

- State policy should be altered to reflect the limited growth potential of Apollo Bay.

Scenario 2

A 250 Megalitre water storage facility is to proceed on the nominated site, within the current Great Ocean Green development site. This facility will have the effect of either severely reducing the number of dwellings that can be provided on the Great Ocean Green development to approximately 300; or requiring a redesign of the Great Ocean Green development to relocate the housing components on additional land if available.

Should the water facility be able to be provided within the short term (eg 3 years) and the Great Ocean Green (or some other developer) proposal proceeds in a modified and reduced form, the Council should:

- Encourage new development within the coastal settlement boundary that meets the other objectives of the Structure Plan, including substantial water conservation methods.
- Release the Mariners Vue subdivision after the existing zoned land is developed to near capacity.
- Extend the coastal settlement boundary to allow rezoning of land to the west of the Apollo Bay township for residential use, following more than 50% take up of the Mariners Vue subdivision. This extension will not include land that falls within a 300 metre buffer of the Wastewater Reclamation Plant or the water storage facility, as indicated on Growth Scenario 2 Map.
- Facilitate non-urban form tourism accomodation development on land between the coastal settlement boundary and Wild Dog Creek that meets criteria specified in the Apollo Bay Structure Plan.

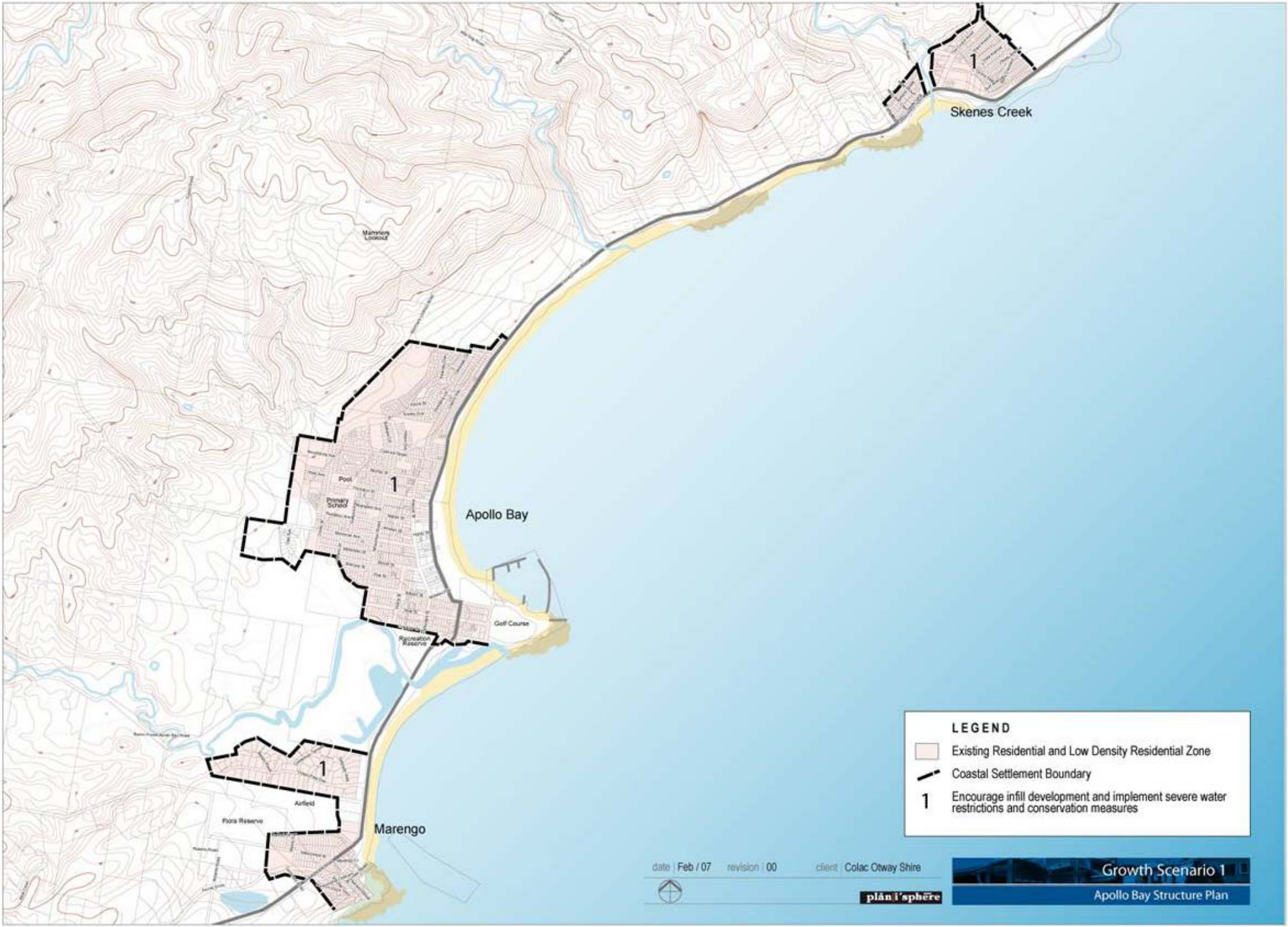
Scenario 3

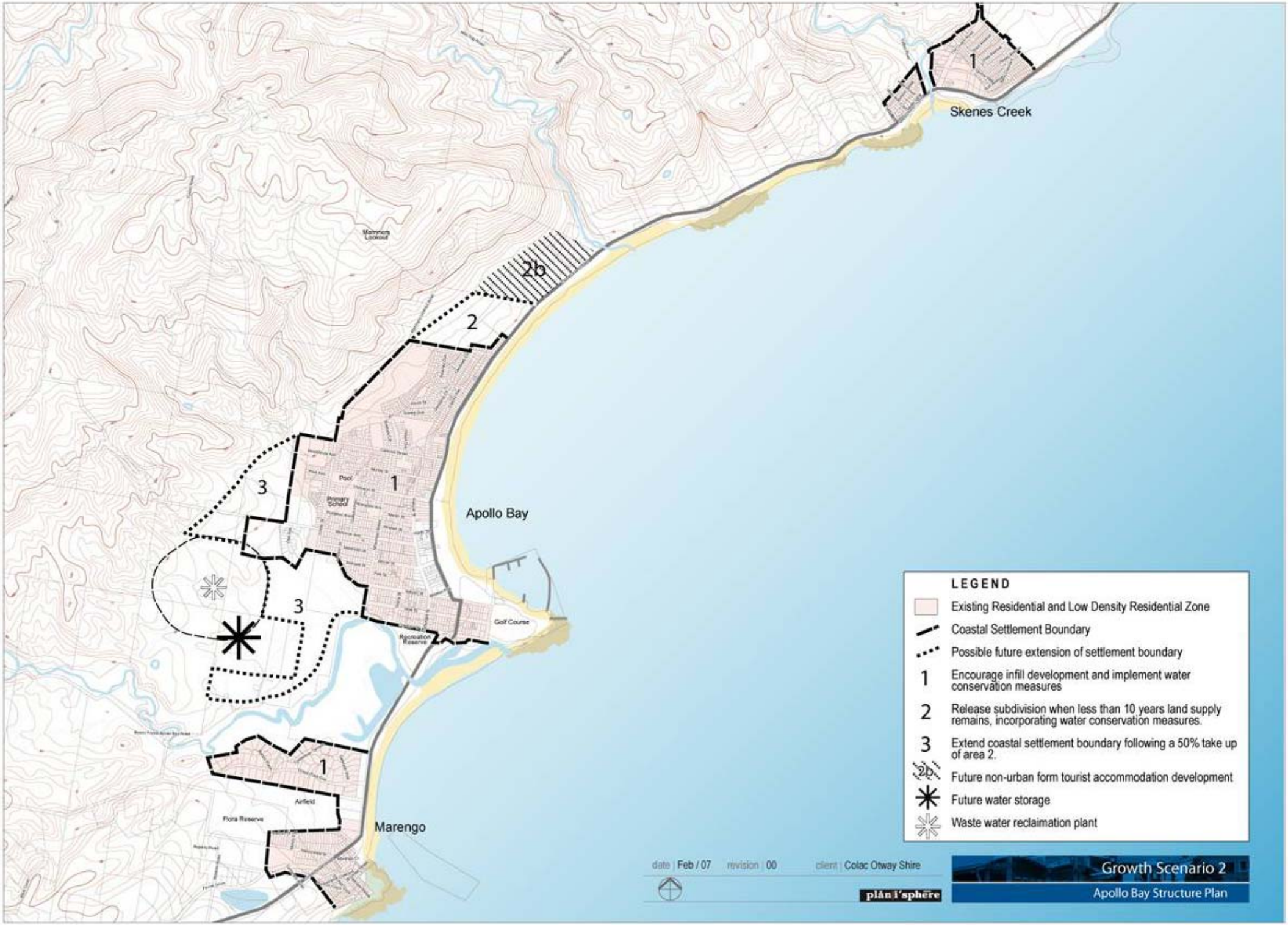
A 250 Megalitre water storage facility is provided on land outside the current Great Ocean Green development site.

Should Barwon Water be able to secure a sufficient water storage facility on land outside the current Great Ocean Green development site, it is recommended to:

- Encourage new development within the coastal settlement boundary that meets the other objectives of the Structure Plan, including substantial water conservation methods.
- Stage the release of the Mariners Vue and Great Ocean Green subdivisions after the existing zoned land is developed to near capacity.
- Facilitate non-urban form tourism accomodation development on land between the coastal settlement boundary and Wild Dog Creek that meets criteria specified in the Apollo Bay Structure Plan.

These Growth Scenarios are mapped below. It is recognised that there are other possible water supply and growth scenarios, however these three growth scenarios provide sufficient guidance to ensure that development only occurs when there is a sufficient supply of water.


Skenes Creek
Apollo Bay
Marengo
Pool
Primary School
Golf Course
Recreation Reserve
Airfield
Flora Reserve
1
LEGEND
Existing Residential and Low Density Residential Zone
Coastal Settlement Boundary
1 Encourage infill development and implement severe water restrictions and conservation measures
date | Feb / 07 revision | 00 client | Colac Otway Shire
plan i'sphere
Growth Scenario 1
Apollo Bay Structure Plan


Skenes Creek
Apollo Bay
Marengo
Golf Course
Recreation Reserve
Pool
Primary School
Airfield
Flora Reserve
Mariners Lookout
1
2
2b
3
3
1
1
LEGEND
Existing Residential and Low Density Residential Zone
Coastal Settlement Boundary
Possible future extension of settlement boundary
1 Encourage infill development and implement water conservation measures
2 Release subdivision when less than 10 years land supply remains, incorporating water conservation measures.
3 Extend coastal settlement boundary following a 50% take up of area 2.
2b Future non-urban form tourist accommodation development
Future water storage
Waste water reclaimation plant
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revision | 00
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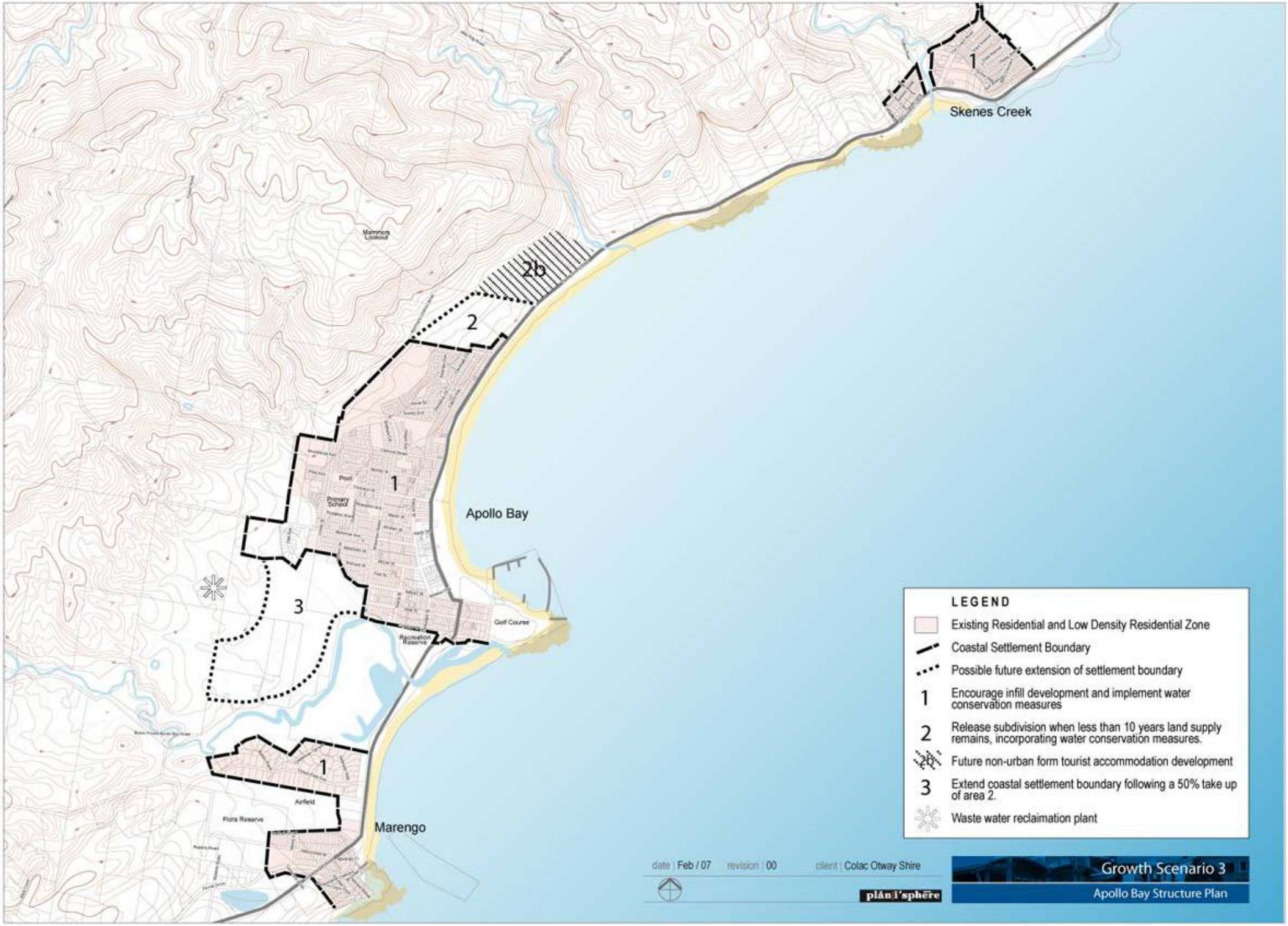
plân|i'sphēre
Growth Scenario 2
Apollo Bay Structure Plan


Skenes Creek
Apollo Bay
Marengo
1
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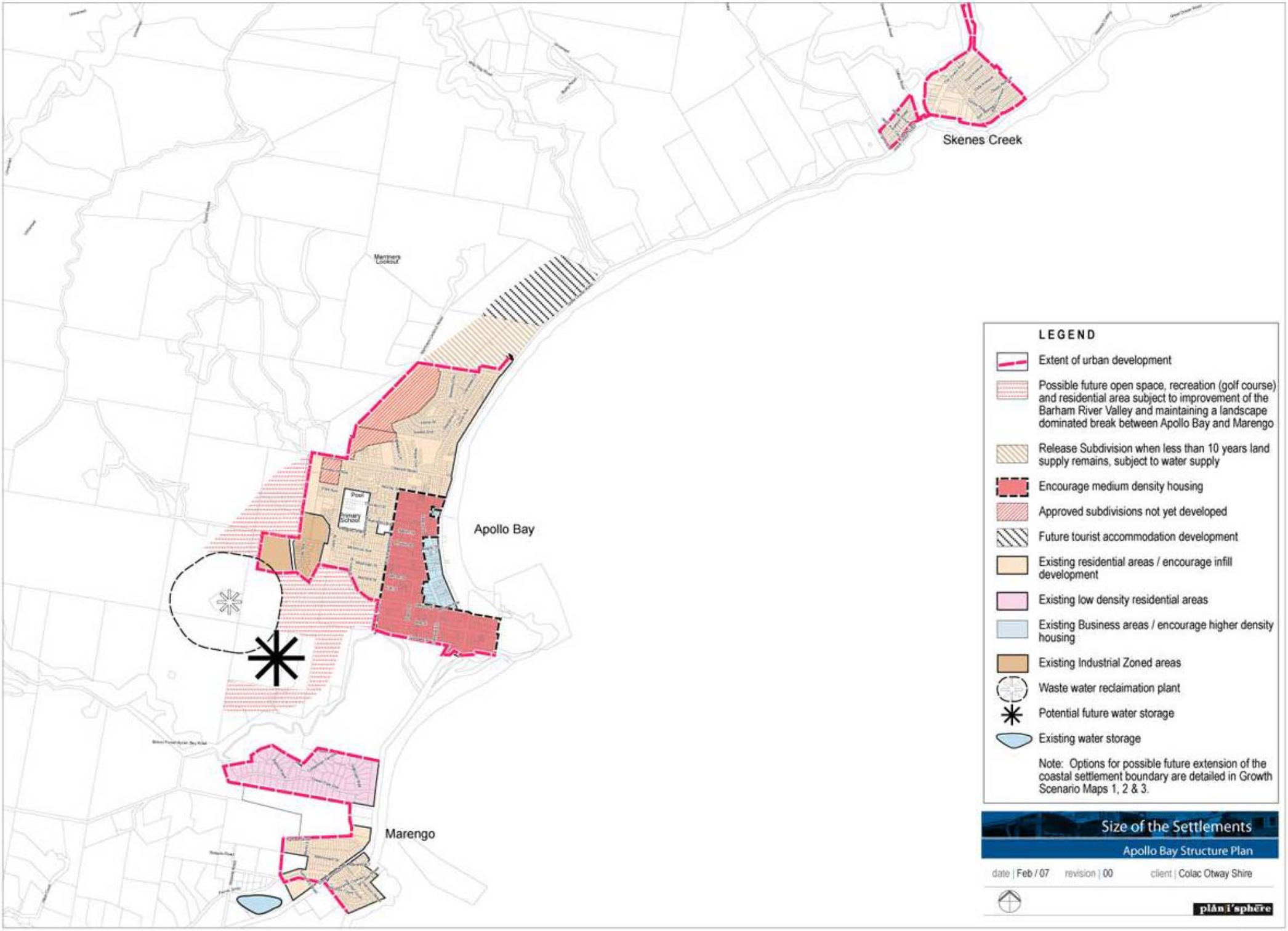
Pool
Primary School
Golf Course
Recreation Reserve
Airfield
Flora Reserve
LEGEND
Existing Residential and Low Density Residential Zone
Coastal Settlement Boundary
Possible future extension of settlement boundary
1 Encourage infill development and implement water conservation measures
2 Release subdivision when less than 10 years land supply remains, incorporating water conservation measures.
2b Future non-urban form tourist accommodation development
3 Extend coastal settlement boundary following a 50% take up of area 2.
Waste water reclaimation plant
date | Feb / 07
revision | 00
client | Colac Otway Shire
plân|i'sphēre
Growth Scenario 3
Apollo Bay Structure Plan


Skenes Creek
Marriners Lookout
Apollo Bay
Marengo
LEGEND
Extent of urban development
Possible future open space, recreation (golf course) and residential area subject to improvement of the Barham River Valley and maintaining a landscape dominated break between Apollo Bay and Marengo
Release Subdivision when less than 10 years land supply remains, subject to water supply
Encourage medium density housing
Approved subdivisions not yet developed
Future tourist accommodation development
Existing residential areas / encourage infill development
Existing low density residential areas
Existing Business areas / encourage higher density housing
Existing Industrial Zoned areas
Waste water reclaimation plant
Potential future water storage
Existing water storage
Note: Options for possible future extension of the coastal settlement boundary are detailed in Growth Scenario Maps 1, 2 & 3.
Size of the Settlements
Apollo Bay Structure Plan
date | Feb / 07
revision | 00
client | Colac Otway Shire
plan i'sphere

C. Settlement Character and Form

Neighbourhood Character Studies have been undertaken in each settlement and adopted by Council.

The Apollo Bay and Marengo Neighbourhood Character Study 2003 (NCS) involved a review of the 2001 neighbourhood character study, which included extensive consultation with the local community. The purpose of the review was to update the survey information and revise the study for implementation into the Planning Scheme.

The 2003 study identifies a total of eight character precincts within the two settlements (see map below) comprising five precincts in Apollo Bay and three precincts in Marengo. Brochures were developed for each precinct, which describe the area, list the key characteristics, provide a statement for the preferred future character, and provide design guidelines for future development.

Apollo Bay and Marengo Character

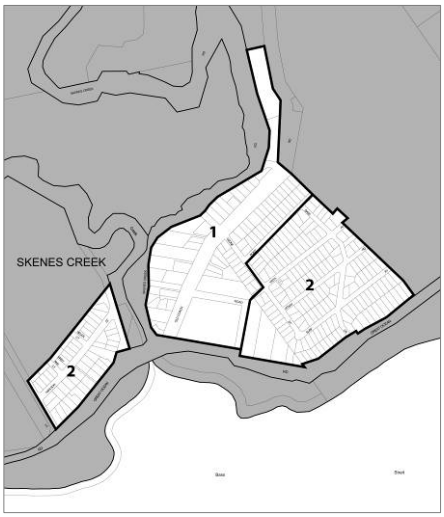
A planning scheme amendment (C21) was exhibited in 2004 to implement key components of this study and additional recommendations from Councillors, specifically a development density policy. The proposed implementation measures included:

- A Design and Development Overlay requiring a permit for buildings over 7.5 metres and where change in natural ground level from excavation or fill exceeds 2 metres. This overlay applied to each precinct with the exception of Precinct 3 in Apollo Bay.
- A local policy for Neighbourhood Character in both settlements that included a statement of preferred character and design guidelines for each precinct.
- A local policy for Development Density in both settlements which proposed minimum lot sizes for each precinct within the study. This policy was not a recommendation of the 2003 study, however it was recommended in the 2001 study. The relationship between lot size and neighbourhood character was considered to be outside the scope of the 2003 study and needed additional strategic justification. The Department of Sustainability and Environment also advised Council that the NCS lacked the strategic justification for the introduction of lot size and density restrictions. This advice was included in the appendix of the adopted NCS. Due to this lack of support from DSE and their

advice to wait until the finalisation of the Apollo Bay Structure Plan, amendment C21 lapsed and the recommended controls have not yet been implemented.

Subsequent and previous sections of this Structure Plan have identified areas where high and medium denisty development is to be encouraged, and corresponding building height controls to allow this form of development. In addition, the Structure Plan identifies areas of future growth, for standard density housing. Such a strategy will provide for the a diversity of housing choice. The housing needs of Apollo Bay for at least the next 10 years, and beyond, will be met by these recommendations. Therefore, reconsideration of the proposed subdivision and dwelling density controls proposed by the Council in Amendment C21 may now be justifiable.

A Neighbourhood Character Study was also conducted for Skenes Creek in 2004/5, which formed part of a study for four towns including Kennett River, Wye River and Separation Creek. This study defined two character precincts for Skenes Creek (see map below) and also developed precinct brochures in a similar format to those for Apollo Bay and Marengo.



Skenes Creek Character Precincts

A planning scheme amendment (C22) implementing the recommendations of this NCS has been approved by the Minister for Planning. The recommended controls are now in the Colac Otway Planning Scheme.

Building heights in residential areas

Building height in residential areas is a key issue that has been raised by members of the community. The community is critical of the style of development that has occurred along the foreshore of Lorne (some of which is actually in Business zoning) – and specifically the large resort or extensive townhouse styles of building. The established areas of Apollo Bay, Marengo and Skenes Creek consist of predominantly single storey dwellings, with some double storey in areas closer to the water. The majority of housing in new subdivisions is double storey, as is recent unit and townhouse development. There are a small number of recent three storey townhouse and apartment buildings.

While many, if not most, existing dwellings are single storey, most have pitched roofs or parapets that give them an overall height of at least 6-7 metres, often more on sloping sites. Many Apollo Bay residents have added a second storey to their properties, and probably most would expect to be allowed to do so if the need arose. A two storey house will be at least 6 metres in height, more commonly 7-8 metres with a pitched roof.

Residentially zoned areas located close to the centre of town and opposite commercially zoned properties have the locational advantage of providing excellent access to the shopping centre, many community facilities, the beach and the Great Ocean Road. These sites may be able to reflect their proximity to higher built form of the town centre with slightly higher development. Frontages of new buildings may need to reflect heights in existing residential areas and amenity impacts on adjoining residential areas would also need to be considered.

The Local Planning Policy Framework of the Planning Scheme provides policies for building height. Clause 22.05 - Coastal and Otway Ranges Townships, applies to Apollo Bay and Marengo. It states that 'new development which comprises more than 2 storeys or is more than 8 metres above natural ground level will be discouraged unless special characteristics of the site justify a higher structure and no off-site detriment is caused.' Clause 22.01 Main Roads / Scenic Routes applies to properties adjacent to a number of roads in each settlement. It states that 'a building should not exceed 2 storeys or 8 metres in height.'

Council planners have reported that these policies are generally accepted by the community and developers, and operate almost as mandatory limits. This was confirmed during consultation on the draft Plan, as was the community desire for mandatory height limits. There was some concern during consultation that a mandatory 8 metre limit does not provide sufficient flexibility to accommodate good design outcomes. A 9 metre limit was suggested for this reason.

There are some examples in Apollo Bay of 3 storey development constructed within the 8 metre height limit, potentially creating dwellings with a low floor to ceiling height and less than ideal living conditions, as this height limit was intended to accommodate only two storeys. While a reduction in the preferred maximum height to 7.5 metres was considered as part of the draft Plan, this was not generally supported. It is considered, instead that future controls should indicate that the lesser of the two measures should be applied in all circumstances. A mandatory maximum of 9 metres should be applied to provide a small area of flexibility for design features, including roof forms. This can be achieved through the application of the Residential 3 zone, or a Design and Development Overlay. The preferred technique of a Design and Development Overlay is explained in the Implementation Chapter.

Objective

In the residential areas outside the town centre of Apollo Bay, limit building heights and ensure upper levels are well articulated to respect the character of the area.

Strategies

- Limit building heights to 2 storeys and a mandatory maximum of 9 metres (and preferred maximum of 8 metres) in residential areas outside the town centre.
- Ensure 2 storey buildings in these areas incorporate upper level setbacks and substantial articulation to reduce dominance of the upper level and impacts in terms of overlooking and visual bulk.

Building heights in the town centre

The majority of building heights along the Great Ocean Road frontage of the Apollo Bay shopping centre range between one and two storeys with a small number of three storey developments. Due to the variation in heights and the relatively low scale of buildings, there is currently a lack of built form presence in the town centre. An opportunity exists to create a street of buildings with more character and presence, to define the centre of Apollo Bay. There are several factors that need to be considered when defining heights for the Apollo Bay commercial area. A defined residential area immediately surrounding the centre has been identified in a previous Section of this Plan as being an area where medium density housing will be encouraged. The built form of the residential area needs to complement both the adjoining business and residential areas

Examples of three storey mixed use coastal centre development with recessed upper levels.

Business Area

There are opportunities for higher buildings within the business area. In particular, sites that are located at the entrances to the commercial area or on prominent corner allotments within the centre offer important opportunities to reinforce the town centre of Apollo Bay. Taller building forms in these locations, with small elements up to 3 storeys potentially coming to the street alignment on key corner sites, could add to the sense of arrival at the centre and contribute to the legibility of the streetscape. The design of buildings in these locations needs to acknowledge and respond to this landmark role.

The impact of the development on the Great Ocean Road streetscape needs to be considered. Recessing upper levels from the street frontage can reduce the impact of taller buildings and also provide for useable balcony space. There are a number of three storey buildings in the commercial area, which have a recessed upper level and appear to have minimal impact on the streetscape. It could also be argued that these buildings do not have enough of a presence because of the recessed upper level, and that well-designed three storey buildings would enhance the centre.

Consideration was given to allowing higher built form of 4 storeys on certain larger sites in the commercial area of Apollo Bay, provided it was set well back from the front and sides of the site. However, the additional yield of dwellings (or other floorspace) that would result from adding a fourth storey under these conditions would be minimal. A large majority of the sites in the commercial area are narrow, and there would be only a few sites that could accommodate a fourth storey with front and side setbacks that are adequate to ensure minimal visual impact on the street and to mitigate overshadowing of public space. Other reasons for favouring a three storey maximum height limit are:

- There are already 3 storey buildings within the town centre of Apollo Bay, and these make a positive contribution to the streetscape and the level of activity in the centre.
- Three storey development is adequate to make a significant contribution in terms of built form presence in the town centre and to reinforce the vertical element of the streetscape.
- In many cases, building to 3 storeys would enable the addition of two levels of residential development above the existing ground floor building or new retail or office use, and when combined with medium density infill and higher density housing in the town centre, this would provide a considerable number of new dwelling opportunities.
- Adding a fourth storey would require the installation of lifts to service the upper level, and the scale of development possible on the narrow lots in the commercial and retail area may not be great enough to justify the cost of installing lifts.
- There seems to be a degree of community acceptance of 3 storey buildings in the town centre, however little support for 4 storey development was indicated during community consultation.

For these reasons, a 3 storey scale of built form with setbacks to the third level is proposed for the Apollo Bay commercial area, as shown on the *Buildings in the Town Centre* Map. This should be a mandatory maximum height to provide the Council and community with continued certainty that new development will not be out of scale and character with the valued township qualities.

A maximum mandatory height of 10.5 metres has been proposed for development within the business zoned areas, in addition to the 3 storey maximum. This is intended to provide for a larger floor to ceiling on the ground floor, as typically required by commercial development (4-4.5 metre ceiling height is an accepted industry standard at present). The remaining 6-6.5 metres is considered adequate to accommodate two levels of residential accommodation including a roof form. As mentioned previously, 3 storey buildings have been accommodated within the current 8 metre height limit, however this is considered to be too constraining a limit given industry standards, the need to create a built form presence for the centre and adequate amenity standards for the residential accommodation above. The controls should be clear that this limit is mandatory and 9 metres is the preferred maximum height.

Amenity impacts of higher development such as overshadowing and overlooking of adjoining residential areas should be minimised. The wide road reserve of Pascoe Street that separates Business zoned areas from residential areas provides a substantial buffer that could potentially minimise amenity impacts. There are however, a small number of houses within the Business zoned area that will also need to be considered. 'Stepping' development to match the height of adjoining properties and providing building setbacks can minimise amenity impacts. In

addition any controls should include decision guidelines that ensure overlooking, overshadowing and general streetscape amenity issues are addressed in any development. In addition, design guidelines need to refer to the importance of appropriate roof lines, concealment of air conditioners, roof decks and other protuberances.

Surrounding Residential areas

In the residential areas immediately surrounding the Business zoned area a greater intensification of development is encouraged by the Structure Plan to assist in consolidating the town, and providing a diversity of housing opportunities. The height and form of this development needs to be carefully managed to ensure that the character of the town is not lost.

It is considered that a higher built form around the business zone, than may be acceptable in other 'hinterland' residential areas, is appropriate to encourage intensified development. A higher built form, up to 3 storeys or 9 metres with a recessed third storey, will complement the higher buildings in the business centre, while providing a transition to the lower single and two storeys of development a further street away.

Again development needs to be designed to fit within the streetscape and minimise amenity impacts on adjoining residential uses. It can however, have smaller setbacks than would normally be required in the 'hinterland' residential areas to maximise development potential, while ensuring that landscaping is still provided, and the development does not overwhelm the street or adjoining buildings.

A graduated set of controls is proposed to achieve a higher built form immediately adjacent to the centre (Area B), and then a form of development with ResCode standards (Area C) between the higher form and the 'hinterland' which may have more restrictive controls (Area D). In this way it is intended that the lower density and more spacious form of residential development that is typical of Apollo Bay, is differentiated from the more compact and higher density forms closer to the centre. In order to achieve this graduation of density, and to maintain the spacious character typical of the 'hinterland' it is necessary to apply minimum lot sizes and other controls outside of the town centre to differentiate between areas identified for high and medium density and areas identified for lower density.

The community was concerned to emphasise that diversity within the areas close to the centre can only be achieved if a variety of dwelling types, including single storey that will cater for the needs of older people, is encouraged.

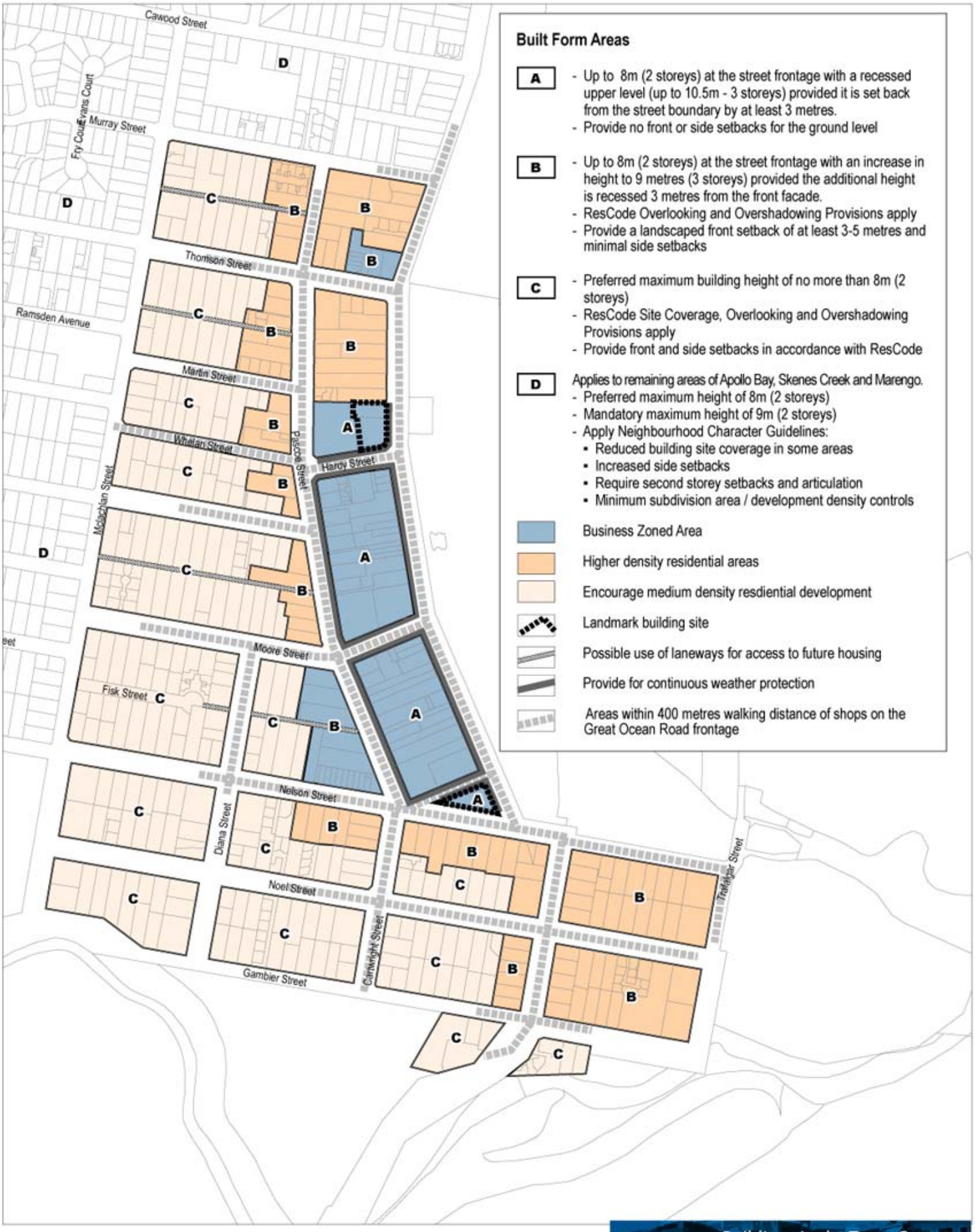
The most appropriate method for implementing these controls is discussed in the Implementation Chapter, and includes the Design and Development Overlay as a preferred tool.

Objective

Consolidate the town centre of Apollo Bay and provide a greater diversity of housing and accommodation at higher densities within and in close proximity to the commercial area.

Strategies

- Encourage higher built form within the Business 1 Zone and in the residential zone within 400 metres of the commercial area of Apollo Bay, as indicated on the *Buildings in the Town Centre* Map.
- Introduce planning controls that include these varied height and setback controls into the planning scheme.
- Ensure that the primary objective of ensuring development complements the character of the township is emphasised in the controls.
- Alter the provisions of the proposed neighbourhood character controls as appropriate to implement these recommendations, including revision of proposed minimum lot sizes and other controls to facilitate a diversity of housing choice and implement the overall housing strategy.



Buildings in the Town Centre

Apollo Bay Structure Plan

date | Feb / 07 revision | 00 client | Colac Otway Shire

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Apollo Bay town centre streetscape

As discussed above, built form can make a significant contribution to the streetscape: the way that buildings interact with the street, the impact on the street in terms of overshadowing or visual bulk, and the architectural interest they create are all important considerations.

The uses in these buildings are also important, particularly at street level. Open shop fronts, restaurants and cafes create greater activity, and clear windows allow views between the shop and the street and create a greater sense of safety when there are fewer people in the street. Blank walls, tinted, reflective or covered windows, and inactive uses such as offices are less desirable at street level, and can reduce feelings of activity and safety, which in turn can discourage further activity. What happens above the ground level is also important – encouraging residential uses above commercial or retail uses is important as it creates a human presence at all times of the day and night, and provides opportunities for passive surveillance from upper levels. Upper levels along the Apollo Bay commercial strip would afford views across the street to the foreshore, and contribute to increased feelings of safety. These and other 'Crime Prevention Through Environmental Design' techniques should be used extensively in the town centre to create a more vibrant and safe public realm.

To the rear of the commercial area in Pascoe Street there are opportunities to fill empty and underutilised sites, to create a more contiguous built form element on this streetscape and increased levels of activity. This would also assist in consolidating the centre and ensuring it remains easy to access by foot. Providing weather protection in the form of verandahs or awnings is also important for ensuring improved pedestrian amenity, and the provisions of continuous weather protection along Business Zone frontages in the Great Ocean Road, the east side of Pascoe Street and the side streets in between should be a high priority.

Signage on or associated with buildings can have a big impact on the streetscape. There is a wide array of signage styles in the commercial and retail area, resulting in the signage clutter and dominance of the built form in some areas. A more coordinated approach to signage is required, ensuring that signage is clear and simple, maintains clear views between buildings and the street, and is concentrated on or below verandahs to avoid dominating buildings or the street.

Recent landscaping works in the town centre have vastly improved the streetscape, with coastal Banksias and informal plantings of native shrubs, sedges and grasses used at key nodes, with improved seating and footpaths. This theme of landscaping, paving and street furniture should be continued into side streets in the commercial area and into the east side of Pascoe St, to further differentiate the town centre streetscape from the surrounding residential streetscapes, and to provide improved pedestrian amenity. This will be particularly important as the east side of Pascoe St is consolidated with increased uses and pedestrian movement. The transition between the town centre character and the residential areas should be represented including a wide footpath and planting zone for more formalised coastal species street trees on the east side of Pascoe Street, with gravel verges rather than grassed nature strips appropriate in this area. Simple kerb layouts should be used but footpaths should be widened where possible. The use of small kerb outstands should be avoided concentrating on larger areas which would make a significant contribution to the streetscape and provide areas large enough for significant tree planting.

The Cypress trees currently provide an important streetscape element in the town centre of Apollo Bay. As discussed previously, the life of these trees is limited and

replacement with new trees will be necessary. It would be most desirable to commence a replacement program as soon as possible to enable new trees to become established prior to the removal of the existing trees. In selecting the species of tree, it will be necessary to find a balance between appropriateness of different species of tree in terms of the existing character and the natural landscape context, and weighing up differing community opinions.

Objective

Require new development and streetscape works in the Apollo Bay town centre to build on and reinforce the fishing village coastal character of the township, and contribute to the creation of a vibrant public realm.

Strategies

- New streetscape and landscape works should continue the theme of the recent works along the Great Ocean Road commercial frontage, incorporating high quality paving finishes, informal native and indigenous plantings of understorey vegetation and street trees, street furniture and footpath lighting.
- New buildings or improvements in the Business 1 Zone must incorporate Crime Prevention Through Environmental Design initiatives to improve the safety, attractiveness and vibrancy of the public realm. In particular, buildings should:
  - Incorporate extensive areas of clear glazing, to enable views between the building and the street.
  - Minimise areas of blank walls, obscured glazing or window coverings that restrict views.
  - Provide active uses at ground level (particularly along the Great Ocean Road frontage), such as shop fronts, cafes and restaurants, or staffed offices.
  - Provide opportunities for passive surveillance of the streets and foreshore area by incorporating shop top housing in the commercial and retail area, and ensuring views are provided between these levels, to ensure a human presence in the commercial and retail area outside business hours.
  - Be constructed to the property boundaries at ground level, to provide a consistent street frontage and clear viewlines, with minimal doorway alcoves or other recessed areas which could provide opportunities for concealment.
- Incorporate weather protection (from sun, prevailing winds and rain) into new buildings and improvements to existing buildings where possible, in particular through the construction of continuous verandahs over footpaths along commercial frontages.
- Where footpath space is sufficient, encourage street dining, in accordance with the Disability Discrimination Act, to provide for increased activity in the town centre.
- New signage should be designed to:
  - Provide simple business identification details
  - Relate to use of the building on which it is placed
  - Avoid contributing to signage clutter
  - Avoid dominating buildings or the streetscape (in terms of size, shape, colours or graphic style)
  - Avoid obscuring views between buildings and the street
  - Avoid obscuring views of the foothills
  - Minimise the need for signage above verandahs.

- Plan for the progressive replacement of Cypress trees through the town centre and along the foreshore, to ensure appropriate new species are established prior to the end of the lifespan of the existing Cypress trees.

Residential streetscapes and character

Neighbourhood Character studies have been prepared for each of the settlements, and as discussed previously these should be implemented, with consideration given to reviewing their recommendations in line with the Structure Plan. It has been noted through the consultation process that a Pre Contact heritage study has not been undertaken for the Study Area. It is considered that this should be undertaken as a matter of course in order to identify and protect all heritage values of the area, including significant trees, as an adjunct to the neighbourhood character work.

There are opportunities to improve the residential streetscapes, which are generally poorly vegetated with sporadic street trees and bushes. Parts of Marengo and Skenes Creek are more heavily vegetated, and in Skenes Creek there are some areas that are well vegetated with mature coastal vegetation, and this theme could be extended. Some streets in Apollo Bay have sections of avenue planting of Western Australian flowering gum and New Zealand pohutakawa providing a fine display over the summer holiday period. These plantings could be enhanced and extended in the older parts of the town. Streetscape planting should generally follow guidelines for each street character type, and some guidelines are provided below. Landscaping techniques should also be utilised to signify the transition from the town centre to the residential areas.

There is a lack of public open space in residential areas away from the foreshore and town centre. In this regard it is recommended that the Planning Scheme be amended to require a 10% public open space contribution for all new residential subdivision. This is discussed further in section D. The wide grass verges offer opportunities to develop key nodes with small areas for landscaping and seating, which should be located along streets proposed for footpath construction. These can serve as 'pause places', and can provide important resting places for pedestrians, particularly the elderly.

Improvements to road edges are also needed in some areas, where traffic over unmade surfaces can result in increased sediment loads on waterways. The use of Water Sensitive Urban Design initiatives within some street reserves, in conjunction with improved landscaping, can serve to improve the streetscape while also providing an environmental benefit.

Objective

Reinforce and improve the informal character, accessibility and amenity of streetscapes in the residential areas of Apollo Bay, Marengo and Skenes Creek, reflecting the distinct existing and preferred future character of each settlement in new improvements.

Strategies

- Work with the community and the Cosworks Parks and Gardens to determine appropriate street tree and vegetation species for future streetscape improvements and street tree planting.
- Undertake a Pre Contact Heritage Study of the Study Area.

- Increase street tree plantings of predominantly indigenous or native canopy trees in the residential areas of all three settlements, with informal alignments and a variety of species reflecting the differences between each settlement. Refer to *Residential Street Tree and Landscaping Guidelines* below for details.
- Provide informal landscaping with indigenous plantings and seating at key nodes in residential areas, especially in larger street reserves, to create "Pause Places" (for passive recreation as well as resting places for pedestrians).
- Construct paved or compacted gravel footpaths along key pedestrian routes in Apollo Bay as recommended in *Access,* utilising natural colours and possibly a gently meandering alignment, in order to draw the themes of the foreshore and beach through to the residential areas and provide improved accessibility.
- Maintain a sense of openness in residential streets in Apollo Bay by retaining the wide, grassy verges (with frequent absence of kerb and channel), but also:
  - Improve road edges (e.g. with rollover kerbs) or install sediment traps to reduce sediment load on waterways (particularly along sloping roads)
  - Progressive introducing indigenous landscaping and grass species to provide water efficient streetscape improvements and reduced maintenance, while maintaining a continuous path of travel along nature strips for pedestrian use.
- Extend the indigenous roadside vegetation and natural streetscapes of Skenes Creek found in Neighbourhood Character Precinct 1, and build on this element of difference that distinguishes Skenes Creek from the other settlements.
- Review Neighbourhood Character Precincts 1, 3, 4 and 5 for Apollo Bay and realign the precinct boundaries to reflect the newly defined town centre, and update the Preferred Character Statements to identify the objective of the Structure Plan to encourage increased residential densities in and around the town centre.
- Implement the Neighbourhood Character Design Guidelines for Apollo Bay and Marengo (as adopted by Council on 9 October 2003) in residential areas outside the town centre (400m radius of commercial core), in particular:
  - Introduce a Design and Development Overlay to limit building heights to 9 metres outside the town centre.
  - Introduce a Neighbourhood Character Policy applying to the residential area of Apollo Bay and Marengo, setting out the preferred neighbourhood character, objectives and design responses for each precinct, to be achieved by new development and minimum subdivision area and other controls to achieve the broader housing objectives and needs.
- Implement the Neighbourhood Character Design Guidelines for Skenes Creek.
- Utilise landscaping techniques to signify the transition from the urban character of the town centre of Apollo Bay to the holiday house suburban character, including wider footpaths and more formalised coastal street tree plantings in the town centre, and less formal footpath and street tree alignments in the surrounding residential areas.

Residential Street Tree and Landscaping Guidelines (to be expanded and finalised in consultation with the community and Cosworks Parks and Gardens)

Apollo Bay Old Town Grid

More formal avenue plantings of indigenous coastal trees including coastal banksia *B. Integrifolia,* drooping sheoak *A. Stricta and* blackwood *A. Melanoxylon.planted at around 10 metre centres.* In streets where significant plantings of WA flowering gum *C. ficifolia or* NZ pohutakawa *Metrosideros excelsa* exist these should be reinforced and enhanced by completion of the avenues.

Fringe Areas, Curvilinear Streets, Marengo and Skenes Creek

Informal planting in clumps and groups of a full range of indigenous species including canopy trees or large shrubs and understorey to reflect the original vegetation of the areas. This would range from typical 'coastal scrub' forms adjacent to the coast to the wetter forest of the inner sheltered areas of the urban settlements.

Building Design in the town centre

The design of a building has a substantial influence on the character of a town, so the relationship between the built form and its streetscape context is an important consideration through the design process. There is an opportunity to move forwards and set a high standard for the design of new buildings in the town centre of Apollo Bay, and to set the township apart from others in terms of high quality, innovative design.

The design of buildings can influence the vibrancy of the town centre – buildings which interact well with the street, provide viewlines from the ground floor and upper levels and accommodate active uses at street frontages are able to make a more positive contribution to the streetscape than those that ignore their context, provide blank walls, and incorporate inactive uses at ground level. The design of buildings can also make a significant contribution to the richness of the urban fabric – the use of interesting building materials, colours and textures, the use of building articulation and unusual roof forms, and simple architectural detailing reflecting the coastal environment need to be incorporated into the design. Building designs also need to be aware of the contribution they can make to providing shade and shelter at the pedestrian interface. The use of verandahs above key pedestrian areas is important for weather protection, however building designs need to ensure that unwanted overshadowing of public areas does not result.

Particular attention needs to be paid to building design on landmark and corner sites, to ensure that each frontage is addressed and activated, and amenity impacts minimised.

Objective

Achieve excellent architectural quality in new development or improvements to existing buildings in the town centre of Apollo Bay, drawing on the existing valued qualities of the centre and setting a new direction in the use of innovative, high quality design.

Strategies

- Ensure that new buildings and substantial extensions to existing buildings in the town centre:
  - Use simple building details.
  - Use a mix of contemporary and traditional coastal materials, textures and finishes.
  - Utilise colours and finishes that compliment those occurring naturally in the area.
  - Provide articulated facades, incorporating setbacks to upper levels to reduce building bulk and overshadowing, and shop front windows at street level in commercial areas.
  - Provide articulated roof forms on new developments to provide visual interest to the street.
  - On larger sites, articulate facades to emulate the fine grain (narrow frontage) subdivision pattern in the centre.
  - Orientate commercial buildings towards the street and provide the entrance to the building directly from the street frontage.
  - On corner allotments, ensure buildings address both streets frontages with shopfront windows at street level.
  - Are built to the property boundary at ground level in the commercial area, or are stepped to match existing setbacks if these are varied.
  - Design buildings for energy efficiency, considering solar access and utilising sustainable energy and construction techniques wherever possible.

Environmental sustainability

The confluence of a number of natural landscape features places Apollo Bay, Marengo and Skenes Creek in an environmentally sensitive setting. Community feedback has indicated that there is a desire to promote the three settlements as leaders in environmental sustainability, to set the settlements apart from other coastal townships in the region and this sentiment is shared by the Council. There are a number of initiatives throughout the Structure Plan which promote environmental sustainability through water sensitive urban design (WSUD) measures and environmentally sustainable building and landscaping practises.

Waterways and waterbodies such as the ocean, Barham River, Wild Dog Creek and smaller creeks from surrounding areas, are recognised as significant landscape elements but they also play an important ecological role. Water enters these features via the Otway foothills that surround the three settlements. Development in the foothills needs to incorporate WSUD principles to improve water quality entering these systems and maintain water flow to pre-development levels to maintain the viability of sensitive ecosystems. WSUD initiatives are outlined in the Size of the Settlements section. Revegetation along creeks and rivers and implementing management plans can also assist in improving water quality and provides additional habitat for wildlife.

There are a number of important wildlife habitats that are located within and around the settlements. Vegetation in the foothills provides an important habitat for wildlife and revegetation should be encouraged wherever possible to provide a more continuous habitat for birds and animals. Other important habitats include the Flora and Fauna Reserve in Marengo and the Rufous Bristlebird habitat south of Panorama Crescent, which require protection.

Environmentally sustainable solutions can be introduced into small scale developments such as residential or commercial buildings and in larger developments such as residential subdivisions to further promote Apollo Bay as a leader in this area. A number of principles for designing buildings and spaces have been developed, which can be incorporated into new developments. Water conservation measures will be a critical component of the ecological sustainability of the settlements, and will reduce the likelihood or scale of costly contingency plans for ensuring a water supply to support the population (e.g. water recycling or desalination plants for potable water use).

Increasing the sustainability of the settlements in terms of the natural environment and in terms of built form and development is consistent with the theme 'Naturally Progressive" of the Colac Otway Shire, and the "Health and Wellness" theme of the Apollo Bay Chamber of Commerce.

Objective

Promote Apollo Bay, Skenes Creek and Marengo as leaders in environmental sustainability within the Great Ocean Road Region and improve the ecological integrity of environmental features within and around the settlements.

Strategies

- Building on the "Naturally Progressive" theme of the Colac Otway Shire, and the "Health and Wellness" theme of the Apollo Bay Chamber of Commerce, develop and promote Apollo Bay, Marengo and Skenes Creek as 6 star settlements, with a strong focus on Ecologically Sustainable Development and Design, and strengthening the eco-tourism advantage of the settlements.
- Incorporate WSUD techniques into new developments as outlined in the 'Capacity of Existing Infrastructure' section of the Structure Plan.
- Incorporate Environmentally Sustainable Development practises into new developments including:
  - Orientation of allotments and buildings to maximise passive solar heating and cooling.
  - Maximise north facing daytime living areas and outdoor spaces.
  - Orientation of windows to maximise sunlight in winter and cross-ventilation in summer.
  - Use of appropriate glazing products to contain heat in winter and release heat in summer.
  - Internal room layout to maximise sunlight through the building.
  - Appropriate use of thermal massing in external building materials.
  - Appropriate use of insulation in the walls, ceilings and floors.
  - Use of shading in buildings and outdoor spaces with external shading or planting, to reduce heat gain in summer.
  - Best use of the site to maximise retention of existing vegetation and landscape design that assists in passive solar heating/cooling.
  - Use of alternative renewable energy sources such as solar power.
  - Use of energy efficient appliances and lighting.
  - Use of solar hot water systems or energy efficient gas or electricity systems.
  - Installation of rainwater tanks for domestic and garden use.
  - Use of water efficient showers, taps, toilets and appliances.

  - Re-use of stormwater on site by minimising areas of impervious surfaces, and grading impervious surfaces to drain to planted areas.
  - Planting hardy plants such as natives that require less watering, mulching and reducing lawn areas.
  - Grey water recycling.
  - Use of building materials with minimal environmental impact such as recycled materials and re-use of existing buildings where possible.
  - Design of buildings for future re-use and adaptation for expansion.
  - Managing environmental and social impacts on the construction site through erosion control, retention of existing vegetation, waste management, noise control, and sediment control.
- Encourage revegetation of the foothills where possible with appropriate species that provide habitat for wildlife and assist in re-establishing indigenous vegetation and eradicating weed species.
- Ensure the continued protection and enhancement of the Marengo Flora Reserve and Marengo Forest.
- Protect Rufous Bristlebird habitat south of Panorama Crescent.

D. Activities: Business, Tourism, Community & Recreation

Commercial and retail activity

Apollo Bay Town Centre

Retail and commercial activity within the three towns is limited to Apollo Bay. Retail primarily fronts to the Great Ocean Road, and occasionally to intersecting side streets and Pascoe Street, with low-key activities. A large proportion of the activity on the Great Ocean Road is tourism focused, with a mix cafes/restaurants, accommodation, surf shops, real estate and gift shops. There are also two small supermarkets, one located in Hardy Street and the other on the Great Ocean Road.

An analysis of vacant land in the commercial area reveals that there are approximately four vacant allotments, which indicates that business activity in Apollo Bay is healthy. However, the existing business zone is not used to capacity, with large areas of underutilised land, particularly fronting Pascoe Street. Considerable redevelopment could occur over time to use this land more efficiently. There may be opportunities in the future to expand the business zone further to the north if this is required. This would fill the gap between the edge of retail and the service station approximately 200 metres to the north. A mix of vacant land and accommodation currently occupies this space. A compact shopping centre is preferable for reasons of walkability, sense of community and minimising impacts on surrounding residential areas.

There appears to be activity occurring on the upper levels of buildings, usually in the form of accommodation, along the Great Ocean Road frontage. This provides visitors and residents with convenient access to shops, services and the waterfront. It also creates more activity in the town centre and allows passive surveillance of the foreshore area.

There are opportunities for additional upper level uses in the Apollo Bay town centre, to provide accommodation and also permanent housing. Additional levels could be added to existing single storey buildings and double storey buildings could be converted. Some allotments have two street frontages which could facilitate access to the upper level without providing a stairwell entrance on the front façade and also provide off street car parking behind the development. Providing additional housing opportunities in the centre could also reduce the pressure for development at the fringes of the township.

Skenes Creek and Marengo

The existing low numbers of dwellings, the lack of substantial future residential growth potential in Marengo and Skenes Creek and the close proximity of the Apollo Bay centre would limit the potential for new retail or commercial activities in each of these centres to a convenience shop or local café (maybe seasonal).

Objective

Intensify commercial and business land uses within the commercial area of Apollo Bay and ensure a future supply of Business Zoned land to meet demand.

Strategies

- Encourage further residential development above ground floor shops and offices in the town centre, provided that the development must contain adequate sound insulation to minimise potential conflicts between legitimate commercial activity and residential amenity.
- Encourage increased usage of the rear of commercial premises fronting the east side of Pascoe Street (offices, services, car parking etc. with accommodation above), to fill empty gaps in the streetscape, promote a more contiguous built form, and create a viable secondary commercial strip for uses that do not require main road frontage (particularly those that serve a local rather than a tourist function).
- Encourage non-residential uses that are permitted under the Residential 1 Zone (e.g. home occupation, medical/health related uses) to locate on the west side of Pascoe St, to complement the commercial uses and benefit from the proximity to the town centre.
- Maintain the residential role of Marengo and Skenes Creek by continuing to focus retail and commercial development in the township of Apollo Bay, other than for small convenience type premises that may serve the local community.
- Consider extending the Business 1 Zone north to Thomson St (petrol station) when the existing commercial area is at capacity.

The Harbour Precinct

The Harbour Precinct is identified in the Planning Scheme as a key development opportunity 'to deliver economic benefits to the shire and promote Apollo Bay as a tourist destination.' It includes the golf course land of approximately 10 hectares, and the harbour with its breakwaters. The current golf course lease expires in approximately 10 years and there is broad agreement that a new 18-hole golf course is needed for the region. Relocation of the golf course is supported in the Apollo Bay Structure Plan, 2000, and the South East Precinct Study, 1997, both of which have been adopted by the Council. The Victorian Coastal Strategy also supports the relocation of non-foreshore dependant uses away from foreshore areas.

A number of studies have been undertaken for the area, which raise key issues and opportunities associated with future development, and propose various development scenarios for the precinct, some with an economic feasibility assessment. The scenarios vary in terms of layout, and the distribution of land uses such as public open space, accommodation, restaurants, and retail facilities. The following studies have been undertaken for this precinct:

- Apollo Bay Harbourside Development Plan in 2001
- South East Precinct Urban Design Study in 1997
- Proposed Coastal Management Plan 1991 superseded by Apollo Bay Masterplan 1996

The key driver for any redevelopment in this area is promoting Apollo Bay as a tourist destination and improving amenities for existing Port users and local residents. Suggestions for potential future land uses have included hot sea baths, open space, restaurants, accommodation, retail, and a marine visitor's centre. It is recognised that the harbour must continue as a working port and safe harbour, and there is a need to improve facilities for current users.

The redevelopment of the harbour precinct is being led by the Harbour Working Group, involving a high degree of State Government involvement. This working group has a detailed planning and decision making role, and this Structure Plan is only able to set the strategic context and guiding principles for this work. Through this process it will be important to identify the balance of land uses to promote the area for tourists, deliver community benefit, and be economically viable. This is a process which will involve a substantial feasibility analysis and consultation with the local community. There are also the interests from key stakeholders that need to be balanced.

The design and layout of buildings and landscaping is another important issue to be addressed. Impacts on the landscape and urban character, the natural environment, and residential amenity should be considered in layout and design options. This is recognised in the Planning Scheme, with a Local Policy that aims to ensure that any development in this area is compatible with surrounding residential character, builds upon the area's coastal assets and provides open space.

The following Objective and Guiding Principles have been developed to assist in the development of a Master Plan and feasibility studies for the Harbour Precinct.

Objective

Develop the port vicinity with a tourism, fishing, boating, commercial and recreational focus strengthening links to the town centre of Apollo Bay and providing net community benefits.

Guiding Principles

General

- Respect and enhance the sensitive coastal setting and landscape character of the foreshore.
- Ensure that the essential port and maritime character prevails.
- Reflect the robust working port character in new development.
- Provision of a safe haven for fishing and recreational boats.
- Develop the port as a year round destination of State significance for tourism and recreation in its own right.
- Provide for community input and consideration during the development of the plan for the Port Precinct.

Activities

- Maintain the function of the harbour as a commercial and recreational fishing facility.
- Provide enhanced recreational boating facilities within the harbour.

- New uses should enhance the tourism role and recreation facilities of the town and region, the fishing industry and boating activities, and reflect the maritime and port themes, and the coastal setting.
- New uses should be complementary to the function of the town centre as the retail core.
- Ensure boating and community facilities are affordable and accessible.
- Maximise the future use of the golf course for public open space or public use.
- Commercial activities will be operationally self sustaining and not aim to substitute the existing commercial and retail centre, but rather, should support the function of the harbour and provide a source of revenue for harbour improvements and operation.
- Maximise use of all spaces and buildings for multiple purposes and community use.
- All activities will address issues of safety, odour, noise and access.
- Encourage uses that provide activity at different times of the day.
- Maintain or improve water quality of the harbour and ensure environmental standards are met or exceeded.
- Investigate opportunities to locate the start/finish point of a sailing event at Apollo Bay, building on the State significance of the harbour.

Vehicular Access and Parking

- Provide clear legible access to the harbour for tourists/visitors, boat haulage, working port and commercial vehicles.
- Provide adequate parking facilities for general tourist use, trailers, day to day users and harbour activities in a location and design that does not visually dominate the development or the landscape setting.
- Alternatives to on-site car parking be considered. (e.g. Shuttle bus).
- Provide for overflow parking facilities for peak tourist periods within the foreshore landscape (soft parking – lawn areas) to minimise sealed surface car parks.
- Where possible, separate access facilities for visitor and tourist parking, from boating and longer term parking.
- Ensure that roads are designed into the physical landscape in a way that unites all elements into a harmonious and attractive whole. (e.g. through location, landscaping, functional roles).

Pedestrian and Cycle Access

- Provide direct and attractive pedestrian/cycle path(s) from the town centre to the Port Precinct. ('Town Link').
- Design the landscape along the Town Link with a continuous theme to visually integrate the town centre with the Port Precinct.
- Provide 'nodes' of interest along the Town Link. (e.g. information boards, playground, seating, kiosk, viewing points).
- Link the Port Precinct with a foreshore shared path that joins with a network of foreshore paths.
- Develop a wide harbour promenade/ wharf that is part of the public domain and accessible at all times.

- Provide enhanced pedestrian access at the intersection of the promenade/ wharf' and the low landing.
- Provide separate and safe pedestrian access along breakwater no.2 (the low landing) and all roadways.

Views and Visual Connections

- Protect and enhance views to and from the town centre to the Port Precinct.
- Locate and design structures to minimise any impact on existing views to Point Bunbury.
- Provide a visual landmark element at the intersection of the promenade/wharf and the No. 2 breakwater (the low landing).

Built Form - Wharf/Promenade Area

- Design high quality buildings and public domain elements to reflect the seaside fishing village character of the town.
- Buildings are to be low scale and nestled into the harbour edge where possible. Buildings should not appear out of scale with or dominate the surrounding landscape and built form.
- Provide a landmark element at the breakwater no. 2 (the low landing) /promenade focal point.
- Develop promenade/wharf buildings that relate to the waterfront and provide active frontages to the promenade.
- Provide visual and pedestrian links to the foreshore hinterland.
- Design buildings that are well articulated and break up horizontal building mass by pedestrian links, vegetation or design elements.

Built Form - Town Link and Golf Course Area.

- Design buildings that are:
  - Well articulated and reflect the coastal village setting.
  - Related to the path system and the Town Link.
- Sympathetic to and complement the foreshore landscape.

Landscape and Vegetation

- Protect existing indigenous vegetation.
- Protect other significant vegetation.
- Improve and use indigenous coastal vegetation in all precinct landscaping.
- Reinforce and ensure the landscape dominates the Town Link area and the golf course area.
- Utilise vegetation to provide wind protection to the development areas.
- Use vegetation to 'soften' built form elements.

Aboriginal and Coastal Heritage

- Respect, and protect as appropriate, existing aboriginal archaeological sites including middens and drinking well (if present/ located).
- Identify and respect other heritage as identified in the Colac Otway Heritage Study 2003 e.g. cultural and natural elements, European heritage.

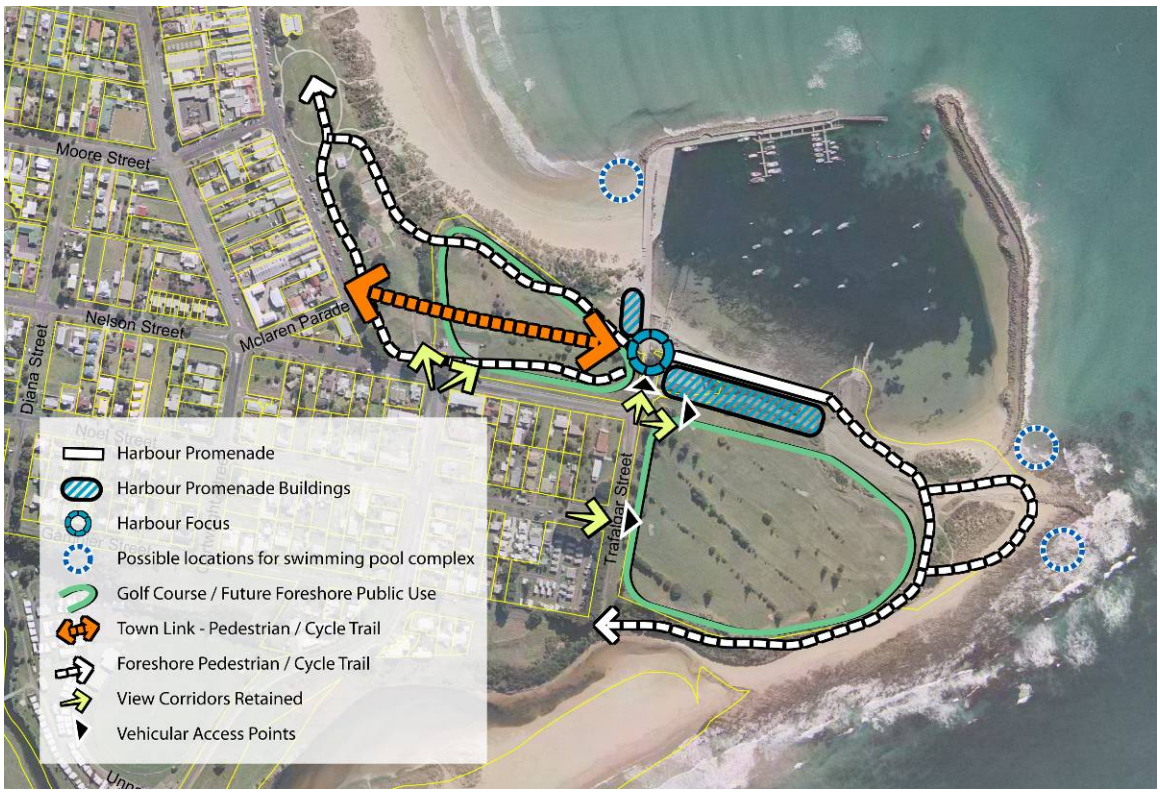
- Genuine input by relevant aboriginal groups.
- Provide interpretation of heritage and archaeological aspects of the site.

Design Themes, Colour and Materials

- Design and detail buildings and structures that reflect and contribute to a consistent foreshore design theme.
- Use colours, materials and finishes that compliment the coastal landscape setting.
- Design the harbour side development to reflect and enhance the working Port character.
- Develop a Design Code for all development.

Environmentally Sustainable Design

- All buildings to demonstrate best practice ESD principles.



Harbour Concept Plan

Apollo Bay airfield

The Apollo Bay Airfield is located close to Marengo, south of the Ocean Park Drive low-density residential area and north of residential areas in Telford Street. It currently caters for single engine aircraft, which are limited in the amount of passengers they can carry. A study of the Airfield in 2001 reviewed current airfield operations, the likely demand for aviation for the next 20 years and the potential for the airfield to expand.

The study developed plans for the expansion of the airfield to cater for twin-engine aircraft (12-15 passenger seats). An increased aircraft capacity is seen as an important contributor to the tourism growth of the region. The report proposed the construction of an 18 X 950 metre runway, with an alignment chosen to minimise impacts relating to noise, vegetation and habitat disturbance, in order to cater for aviation growth over the next 20 years. Acquisition of some adjoining land was recommended.

A key issue in the expansion of the airfield is the noise and amenity impacts on surrounding residential areas, particularly the low-density residential area to the north. Some houses in this estate are as close as 50 metres to the edge of the existing runway and the expansion could potentially bring them closer. The additional noise from twin-engine aircraft aircrafts and the likelihood of higher use would be the major impact on surrounding residential areas.

Three options appear to be available to ensure continued and improved air access to the region:

- Upgrading the existing airfield at Marengo/Apollo Bay,
- Relocating the airfield to an alternative location, or
- Maintaining the existing airfield with limited use and developing an alternative for larger aircraft.

Each of these options has advantages and disadvantages, which would need to be considered in relation to, in particular: impacts on existing and future residential amenity; safety; ecological and economic sustainability; viability of alternative sites; impacts on tourism to the settlements.

In the event that the airfield is relocated and the land becomes available for alternative uses, potential uses of the land include recreation and residential development. If residential development is to take place on this land to consolidate the settlement of Marengo, land release elsewhere within the settlement boundaries will need to take this into consideration.

The future of the airfield will need to be determined by Council with further expert advice and consideration of impacts on tourism, safety and the availability of alternative sites. It must be noted that residential development must not occur on the airfield site unless an alternative site is found and realised.

Objective

Ensure continued and improved air access to the region.

Strategies

- Continue to consider improved airfield options in the region with a view to either:
  - Upgrading the existing airfield at Marengo/Apollo Bay,
  - Relocating the airfield to an alternative location, or
  - Maintaining the existing airfield with limited use and developing an alternative for larger aircraft.
- Investigate the need for improved emergency helicopter landing facilities in Apollo Bay.
- If the airfield use is to be relocated, the land should become available for alternative public uses(recreation or open space) or residential development (Residential 1 Zone).
- Ensure that development of the airfield site does not occur on the airfield unless an alternative site is found and realised.
- In the case of a new airfield, establish linked bus services to Apollo Bay.
- In accordance with the Apollo Bay Airfield Development Review, modify the Airport Environs Overlay 2 in the Colac Otway Planning Scheme to accord with the ANEF 15 contour.

Community and Recreation

The majority of the community and recreation services and facilities for the three settlements are concentrated in Apollo Bay. A Health and Community Service Centre, child minding centre and associated facilities are located in McLachlan Street, and the Apollo Bay P-12 College with its recreation areas, swimming pool and gymnasium is located just to the west of this area, on Costin Street. Health and community facilities will need to be improved over time to meet the needs if the increased resident and visitor population.

Recreation areas include the foreshore, with its grassed open space, playgrounds, picnic areas and skate park, and a 9 hole public golf course at the southern end of the foreshore and Point Bunbury. A football oval is situated to the south of the town, with adjoining tennis courts. A pony club uses the foreshore land at the south of the Apollo Bay township, to the east of the Great Ocean Road.

As discussed above, a rezoning and development proposal currently exists for the construction of a new 18 hole golf course, public open space and pathway network, in conjunction with a residential subdivision. The Apollo Bay Structure Plan, 2000 recommends the relocation of the golf course to a non-foreshore location within Apollo Bay and Marengo. It also identifies the land between Apollo Bay and Marengo (where the rezoning is proposed), as a suitable location for 'open space, recreation or agriculture.'[17] The Apollo Bay Golf Club owns land on Barham Valley Road, suitable for a 9 hole golf course, however it is currently seeking the development of an 18 hole golf course in conjunction with the Great Ocean Green proposal to enable the provision of a world class facility. Feedback received on the Draft Apollo Bay Structure Plan identified the high value placed on golf within the

[17] Apollo Bay Structure Plan, PPK, 2000

community, with a number of submissions (including many pro forma submissions) highlighting the need to ensure the continuation of golf in the area.

There are also opportunities to provide additional public open space areas and playgrounds in non-foreshore locations, in closer proximity to dwellings. As has been identified, there is a lack of usable public open space in non-foreshore locations which justifies amending the Colac Otway Planning Scheme to require a 10% public open space contribution for all future subdivisions. Public consultation has also revealed that the existing pony club facilities may need upgrading, or an alternative site found.

A Recreation Strategy for the Colac Otway Shire has also recently been completed which provides direction on recreation needs. It will be important to monitor demographic trends and provide recreational facilities in line with demand, in particular to meet the needs of the youth population.

Community feedback on the draft Structure Plan identified a number of opportunities for improving community and recreation facilities, including improved public health services, aged care/residential facilities, emergency services (hospital and ambulance), community health services, childcare centre, creation of a permanent library (rather than a mobile library). The need to foster a sense of community, belonging and connection was also raised, as was the need to foster arts, and provide cultural and sporting facilities for permanent residents.

Objectives

Encourage future recreation facilities to be located together with other community facilities in a central and accessible location.

Ensure that community, health, education and recreation facilities are provided to meet the needs of current and projected future residents and visitors to the area.

Strategies

- Implement recommendations of the recreation strategy to meet the recreational needs of Apollo Bay, Skenes Creek and Marengo.
- Explore opportunities to provide additional public open space and space for children's play away from the foreshore within residential areas.
- Amend the Colac Otway Planning Scheme to require a 10% developer contribution for public open space in the form of suitably located and improved land, in preference to cash contributions for open space provision and improvements.
- Explore the potential to create new open space areas or utilise existing non-traditional open space for public use, including around the Youth Club.
- Provide recreational facilities to meet the needs of the permanent youth population.
- In the provision of new playgrounds or refurbishment of existing playgrounds, ensure that some play equipment is provided for all abilities.
- Ensure the retention and improvement of health and community services and facilities and educational facilities in the area, and ensure that these services and facilities are expanded to accommodate the needs of a growing population and visitor base.

- Explore needs, opportunities and capacity to provide increased community facilities such as a permanent library, childcare centre, community health facilities, and arts and cultural facilities, particularly as the permanent population increases.
- Support and promote the role of the Mechanics Institute as a key cultural facility for Apollo Bay.
- Explore opportunities and activities to foster a sense of community, belonging and connection, particularly as the community grows and changes with
- Encourage the provision of services to support the ageing population, including aged care facilities, medical facilities and housing.
- Continue to investigate alternative sites for the relocation of the pony club and ensure the continued availability of this foreshore land for public open space purposes.
- Support an alternative location for the golf course away from the foreshore reserve at Point Bunbury, where it would meet the objectives of this Structure Plan.
- Investigate necessary improvements to the existing swimming pool and the need for a new swimming pool.
- Provide seating and landscaping at key nodes along high pedestrian traffic routes, set within the wide street reserve, to provide small open space areas and rest stops for pedestrians.

Tourism

The economic opportunities presented by the tourism industry play a vital role in the ongoing viability of the settlements, with a large proportion of the local employment in the area being tourism related. The Apollo Bay region attracts almost 400,000 visitors per year, and although this figure has declined in recent years, visitors are now staying for longer periods, with fewer day trip visitors. There is demand for a wide range of accommodation, with the most popular forms being caravan parks, hotels/motels and staying with friends/relatives. There is currently a lack of 4+ star accommodation in the area, so there is an opportunity to meet the high demand for this type of accommodation. There is a trend across Victoria for the closure of coastal caravan parks due to escalating property prices which can make the operation of such a facility commercially unviable in comparison to the development potential of the land. This has been experienced in Apollo Bay with the closure of the Waratah Caravan Park. Maintaining camping and caravan park facilities and other lower cost accommodation options in the study area will be important.

In this regard, land between the coastal settlement boundary and Wild Dog Creek has been identified for non-urban form tourism accommodation development, being a mix of cabins, caravan and tent sites in accordance with criteria contained in this Structure Plan. This is the only broad acre site identified for such a use.

The redevelopment of the harbour offers a significant opportunity to provide an improved tourist attractor, although care must be taken to ensure that this does not draw activity out of the town centre. The proposal to develop an 18 hole golf course would further support the tourism industry, and community feedback has revealed the importance of golf to the community and as a major tourism attractor, and the need to ensure its continuation.

The area has the potential to further capitalise on the ‘naturalness’ of the setting in any marketing strategy, and benefit from its strategic location near the Otway

National Park and at the start of the Great Ocean Walk. Eco tourism opportunities should also continue to be explored.

The completion of the Geelong Bypass is expected to enhance the tourism potential of the area, resulting in a reduction in travelling times.

Objective

Support the growth of tourism as a major employer for the region.

Strategies

- Support and promote the Great Ocean Walk.
- Investigate the provision of long term car parking facilities for users of the Great Ocean Walk at the airfield or Marengo.
- Encourage high quality tourist accommodation facilities (including 4-5 stars) to locate within the coastal settlement boundary.
- Encourage the retention of caravan parks and camping facilities in each of the settlements, to provide low cost accommodation options.
- Encourage non-urban form tourism accommodation development between the coastal settlement boundary and Wild Dog Creek, subject to criteria in the Apollo Bay Structure Plan.
- Allow a limited range of quality tourism accommodation facilities and eco-tourism activities in other locations outside the coastal settlement boundary, where landscape and other objectives and the criteria contained in *section B: Proposals outside settlement boundaries* can be met.
- Realise the tourism potential of the harbour in its future redevelopment, and ensure that it contributes to and complements the tourist function of the town centre, foreshore and beach of Apollo Bay rather than diverting tourism activity.
- Continue to realise the eco tourism advantage of Apollo Bay, with its dramatic natural setting and strategic location at the edge of the Otways, building on the "Naturally Progressive" theme of the Colac Otway Shire and the "Health and Wellness" theme of the Apollo Bay Chamber of Commerce.
- Explore and promote opportunities (including economic opportunities) for eco-tourism activities within the Barham River floodplain in conjunction with its rehabilitation, such as bird-watching, nature walks, or an information centre.
- Explore the potential of promoting and improving access to the waterfall at Wild Dog Creek as a tourist attractor.
- Explore opportunities and likely interest in developing a local museum and information centre to educate visitors about the natural and human heritage of the area (for example), building on the existing information centre or in addition to this centre.

Industry

The Apollo Bay industrial estate is located to the west of the town centre, adjoining residential land on the edge of the urban area. There are currently 2 vacant infill lots (totalling 0.4 hectares) and 2 broadacre lots (of 7.4 and 8 hectares) of industrial land available, comprising 60% of the total industrial land provision in Apollo Bay. In addition, there are industrial type uses in Marengo – a waste transfer station and a concrete batching plant – that may be better suited to industrial land. The large area of vacant industrial land has ample capacity for the relocation of these uses.

There may be an opportunity to rezone some of the Industrial 1 Zone land to Industrial 3 Zone, in order to provide a buffer of industrial uses that are compatible with residential uses between the Residential 1 Zone and the remaining Industrial 1 Zone.

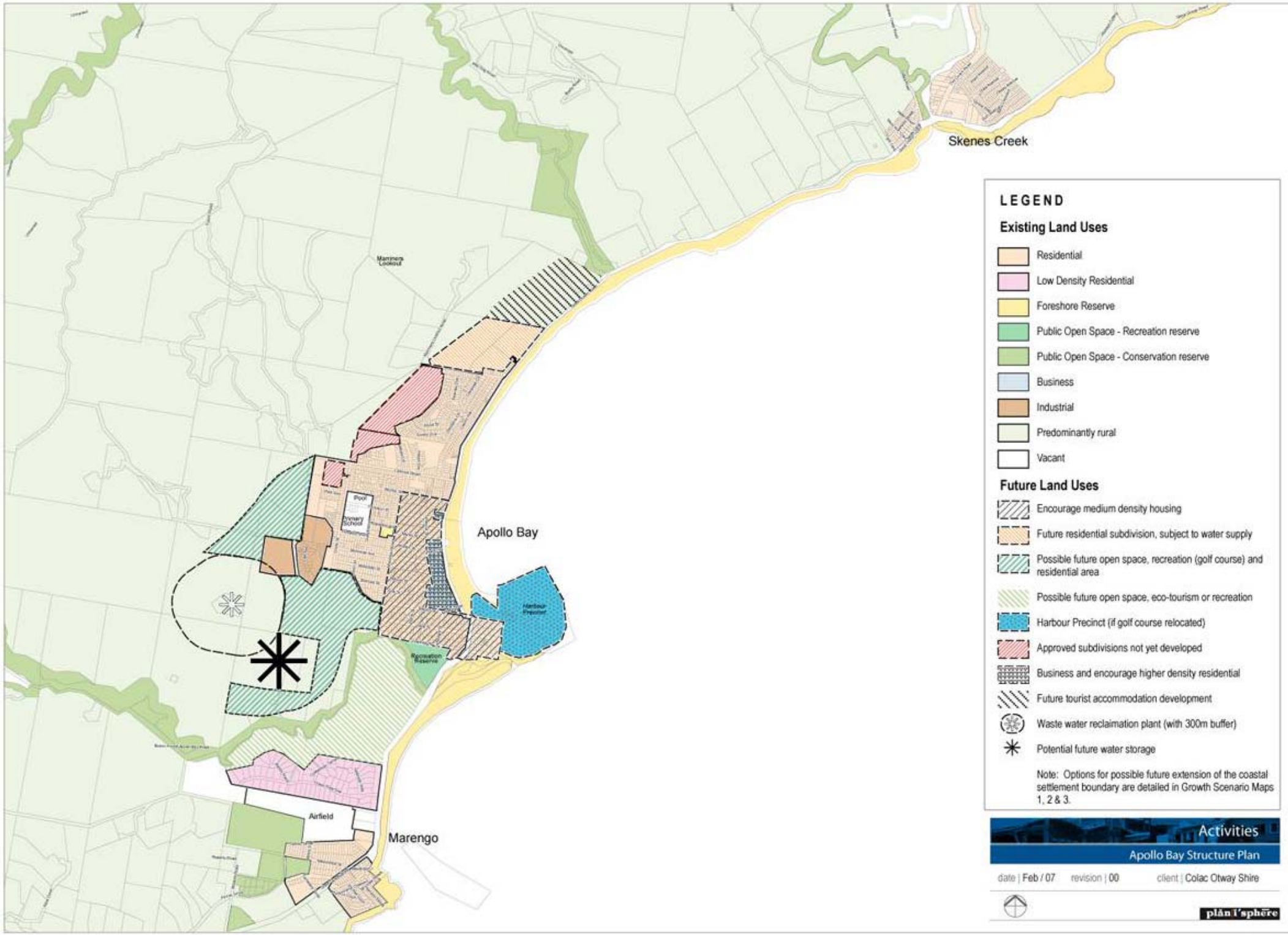
There are opportunities to improve the appearance of the industrial estate, through the use of landscaping along the periphery of the estate to screen buildings and items stored on the land, as well as within the industrial area.

Objective

Provide for future industrial development while minimising offsite impacts on surrounding residential uses, the environment (particularly local waterways) and views from residential areas and the Great Ocean Road.

Strategies

- Channel new industrial land uses into the existing industrial zone, and consider extensions to the industrial zone only when the existing industrial area is close to capacity, and with consideration given to the impact of further industrial uses on the surrounding area.
- Require new industrial development to incorporate appropriate landscaping, in order to screen the development from surrounding areas and the Great Ocean Road.
- Require new industrial development to incorporate Water Sensitive Urban Design initiatives, in order to reduce the need for potable water use for landscaping, reduce runoff from the site, and to filter runoff and reduce sediment loads on waterways.
- Encourage the development of business or economic activities (in the town centre of Apollo Bay) that support or complement the local industrial sector.
- Investigate the feasibility and desirability of relocating/encouraging the relocation of the transfer station and concrete batching plant from Marengo to the industrial area of Apollo Bay. In the event that these uses relocate to Apollo Bay, the land should be redeveloped for public open space.
- Ensure that new development in the southern portion of the industrial estate addresses any potential flooding issues.


Skenes Creek
Mariners Lookout
Apollo Bay
Harbour Precinct
Recreation Reserve
Pool
Primary School
Airfield
Marengo
LEGEND
Existing Land Uses
Residential
Low Density Residential
Foreshore Reserve
Public Open Space - Recreation reserve
Public Open Space - Conservation reserve
Business
Industrial
Predominantly rural
Vacant
Future Land Uses
Encourage medium density housing
Future residential subdivision, subject to water supply
Possible future open space, recreation (golf course) and residential area
Possible future open space, eco-tourism or recreation
Harbour Precinct (if golf course relocated)
Approved subdivisions not yet developed
Business and encourage higher density residential
Future tourist accommodation development
Waste water reclaimation plant (with 300m buffer)
Potential future water storage
Note: Options for possible future extension of the coastal settlement boundary are detailed in Growth Scenario Maps 1, 2 & 3.
Activities
Apollo Bay Structure Plan
date | Feb / 07
revision | 00
client | Colac Otway Shire
plan t'sphere

E. Access

Connecting the three settlements for pedestrians and cyclists

Creating a continuous pedestrian/cyclist link between Marengo, Apollo Bay and Skenes Creek will provide opportunities for residents and tourists to further experience the landscape setting and allow access to the services and facilities located in Apollo Bay. There is an existing shared pedestrian and cyclist path between the edge of Apollo Bay and Marengo however there is no complete link between Apollo Bay and Skenes Creek. Improvements are also required to existing paths so that they are suitable for pedestrians and cyclists.

A shared pedestrian / cycle path (with a compacted gravel / sandstone surface) commences on the northern edge of Apollo Bay township, in the vicinity of Wild Dog Road and terminates in the vicinity of Marriners Lookout Road – on the beach side. This path runs parallel to the beach but is currently discontinuous, as it is under construction or repair at several locations and terminates before the main commercial / retail heart of Apollo Bay.

A narrower, more circuitous path commences opposite Thomson Street – by which stage the beach is progressively located at a greater distance from the Great Ocean Road and views of the water are obscured. This second path terminates at the Great Ocean Road Visitor Information Centre (opposite Hardy Street).

The section of the Great Ocean Road linking Skenes Creek to Apollo Bay does not present any obvious opportunities to establish a shared pedestrian / cycle path as its alignment is often very close to the beach and many sections have relatively steep embankments on the land side. There is also presence of dense vegetation, particularly on the beach side, which may pose constraints on the establishment of new paths.

Within the foreshore reserve in the heart of Apollo Bay, the pedestrian network loses some definition, particularly in providing a direct link south to Marengo. Pedestrian paths terminate abruptly on the gravel car parking area near the corner of Nelson Street and the Great Ocean Road. Exiting Apollo Bay in a southerly direction, there are no pedestrian / bicycle facilities along the Great Ocean Road between Nelson and Noel Streets. A concrete footpath only recommences south of Noel Street and this then turns into a compacted gravel / sandstone shared pedestrian / cycle path south of Gambier Street and continues uninterrupted to Marengo. The width of the path is reasonably generous although it appears narrow in some locations. Some widening should be investigated in the narrowest sections.

The path abruptly ends on the north side of Marengo Crescent adjacent to its intersection with the Great Ocean Road. There are no paths or footpaths in the Marengo settlement.

Objective

Strengthen the pedestrian and cyclist connections between Marengo, Apollo Bay and Skenes Creek.

Strategies

- Investigate the feasibility of a shared pedestrian / cyclist path on the ocean side of the Great Ocean Road to the north of Wild Dog Road, completing the link from Apollo Bay to Skenes Creek.
- Negotiate with landowners on the inland side of the Great Ocean Road, as opportunities arise, to establish a shared pedestrian / cyclist path between Wild Dog Road and Skenes Creek. Any shared pathway design on the land side would need to resolve issues relating to slope, visibility and conflict between path users and vehicles at driveway entrances.
- Investigate options for a shared pathway connection on the land side of the Great Ocean Road between the commercial and retail area of Apollo Bay and the northern end of the township, to provide improved pedestrian and cyclist access to the town centre.
- Construct a shared pedestrian / cyclist path on the east side of the Great Ocean Road between Nelson and Noel Streets.
- Upgrade the existing footpath on the east side of the Great Ocean Road between Noel and Gambier Streets to a shared pedestrian / cyclist path.
- Improve pedestrian access through the Visitor Centre car park in the foreshore reserve.
- Consider the provision of low impact night lighting on the shared path between Marengo and Apollo Bay to provide safe 'round the clock' access.
- Define pedestrian access through the caravan park at Marengo to provide a link to the Great Ocean Walk.
- Investigate options for acquiring land or access to land to construct a shared pathway behind the township of Apollo Bay and linking to the pathway system to the north and south of the town, providing users with a circuit and enabling views over the town and ocean beyond from above the 40-50 metre contour line.
- Provide a bridge for pedestrians and cyclists across Barham River, in order to provide links to future public open space in this area and improve links between Apollo Bay and Marengo.
- Future cycling and pedestrian paths should consider providing a link to the Old Beechy Rail Trail, to provide opportunities for people to ride from Apollo Bay to Colac and other walking or cycling trails throughout the Otways.

Pedestrian network

Pedestrian footpaths are, in the main, confined to the Great Ocean Road main retail strip and intersecting side streets generally for the length of "the block" up to Pascoe Street. Beyond this central area, most pedestrians using the local road network and travel on the carriageway and/or nature strips where possible. This situation is adequate in most instances however it is not ideal for the elderly, disabled and/or families with prams. It also acts to reduce accessibility to key community facilities such as the hospital and school. There is therefore a need to provide better accessibility to enhance mobility for pedestrians and establish better links between Apollo Bay's various activity areas. Footpaths should be provided on both sides of streets that lead between major attractions (e.g. schools, hospitals, beach, shops, community facilities etc.). In addition, through block links should be encouraged wherever possible from Pascoe Street to the Great Ocean Road.

The Draft Strategic Footpath Network Plan identifies locations where primary and secondary footpath networks should be implemented in Apollo Bay and it also provides costings for future works. The locations recommended in this plan have been adopted in the Structure Plan.

There are no footpaths within the settlements of Marengo and Skenes Creek. The absence of community facilities in these settlements and the lower volumes of traffic would appear not to necessitate the construction of footpaths.

Objective

Create a highly walkable town centre in Apollo Bay with safe and convenient access to the shops, community facilities and recreational activities.

Strategies

- Provide a continuous footpath along Pascoe Street, between Nelson Street and Thomson Street, to improve pedestrian access to businesses fronting to Pascoe and from angled car parking on Pascoe Street.
- Construct footpaths along both sides of Hardy Street and Pengilly Avenue to provide a continuous link between the shops, the primary school, leisure centre, outdoor pool and the hospital. (A footpath already exists in Whelan Street.)
- Construct footpaths along both sides of McLachlan Street between Thomson Street and Gambier Street to improve pedestrian access to the Hospital and to provide a link to the Barham River and floodplain.
- Upgrade and maintain existing laneways for safe and convenient pedestrian access and encourage future housing to look onto the laneway for passive surveillance.

Traffic

The capacity of the existing road network appears generally adequate to sustain likely future growth, notwithstanding the need to consider traffic management measures and other initiatives at specific locations. The main traffic function in the town centre is currently provided by the Great Ocean Road with a supporting circulation / access function provided by Pascoe Street.

The Great Ocean Road is a major tourist route, with historic associations and magnificent scenery that is iconic of Victoria. While through traffic in the centre is of concern to locals, particularly in peak holiday periods, it also adds to the vitality and viability of the centre and brings substantial commercial benefits to the town that would be lost by creation of a ring road. Currently the town is used as a lunch time stop off by tourist buses, and it is unlikely this would continue should a shorter route to the Twelve Apostles be available.

The Apollo Bay Sand Study Final Report, prepared by Coastal Engineering Solutions in August 2005, considered coastal processes in Apollo Bay, including Mounts Bay and coastal erosion risks to the Great Ocean Road. This study, combined with feedback received from VicRoads suggests that a ring road for through traffic is not necessary. In addition, the importance of the hinterland landscape precludes against a ring-road concept as an alternative route.

Consideration should however be given to the impacts of storm events that have in the past caused low lying sections of the Great Ocean Road to be overtopped by wave action resulting in the road being closed to all users for short periods of time.

The Great Ocean Road is the link through Apollo Bay and no other convenient alternative exists on either the main or local road networks. The investigation of options for alternative routes is considered appropriate to cater for interim access in times of such storm events. The purpose of a route would not however be to serve as a bypass for the township but to secure access to and through Apollo Bay for short periods of time until the Great Ocean Road access is restored.

Therefore the conclusion of the Structure Plan in the consideration of through traffic is that the Great Ocean Road should be maintained as the main thoroughfare in Apollo Bay and the Study Area in general due to its historical significance and the importance of the road for accessing commercial businesses, the foreshore and the beach, and potential impact on the landscape values of the hinterland of a ring road construction.

However, while the provision of a ring road or bypass to the rear of the townships is not considered appropriate, there is a need to improve local accessibility, particularly between the northern part of Apollo Bay and the town centre and to better manage through traffic in the town centre.

There is also a need to investigate options for the development of future local access to serve as alternative routes in times of Great Ocean Road closures.

Through traffic can be managed in the town centre so that the negative aspects are minimised (although not entirely removed) and the positive aspects retained. Measures such as further reduction of the speed limit through town during peak periods should be undertaken.

A one-way option in the town centre could also be investigated further with VicRoads. A one-way system on the Great Ocean Road could have the following features:

- Flow to be one-way southbound from Thomson Street to Nelson Street - this caters for the major direction of tourist traffic, which arrives into Apollo Bay from the Melbourne / Lorne direction. The one-way road would be achieved through provision of a single traffic lane and an on-road exclusive bicycle lane in the southbound direction. Northbound cyclists could be redirected onto Pascoe Street or on a new two-way off-road bicycle path on the foreshore that services all of Apollo Bay - as envisaged in the recommendations for improved bike linkages.
- The single southbound traffic lane on the Great Ocean Road offers the opportunity to reduce the overall carriageway width, reduce pedestrian exposure (both in terms of the road width and traffic volume), reinforce its tourist role and enable the establishment of bus parking on both the left and right side of the carriageway (the right side would enable passengers to be dropped off by the shops and the redesign of the Great Ocean Road could be such to ensure adequate & safe width is provided for passengers to disembark clear of the single moving traffic lane - given that they are disembarking on the traffic lane side -not the footpath).
- Northbound traffic through Apollo Bay would use Pascoe Street from Nelson Street to Thomson Street and then return to the Great Ocean Road.
- Pascoe Street would remain two-way, thus continuing to perform a key access / circulation role for traffic bound for Apollo Bay's commercial / retail heart.
- The main bus drop-off zone for Apollo Bay would be very central – on the Great Ocean Road in the commercial / retail heart. Longer term bus parking would be provided in Pascoe Street on the west side (enabling buses to first drop-off passengers on the Great Ocean Road then drive "around the corner" to Pascoe Street and park at its southern extremity, wait for the necessary time and then return to pick-up passengers at the same point on the GOR - they effectively would perform a loop comprising the Great Ocean Road / McLaren Parade / Pascoe Street / Thomson Street / back to GOR).
- The operation at the Nelson Street / Great Ocean Road intersection would be simplified under this scheme and no major change required (other than the changes complementary to carriageway narrowing associated with a one-way scheme and channelisation necessary to force north-west bound Nelson Street traffic to proceed to Pascoe Street.
- A new roundabout should also be installed at the Great Ocean Road / Thomson Street intersection, facilitating safe right turns for locals wishing to access the shops and buses completing the "loop".

At present, the Great Ocean Road is the only link between Marriners Lookout Road and the Town Centre, and the design of future subdivisions within the existing residential zoned land should ensure that this through traffic function is provided.

Development proposals for the area between Marengo and Skenes Creek and the area to the north of Marriners Lookout Road would result in changed traffic conditions, with an increase in traffic pressure in local residential streets. In any development between Marengo and Apollo Bay, the provision of river crossings for pedestrians and cyclists is strongly supported as it would provide direct routes into the heart of Apollo Bay and support sustainable forms of transport. Such links should be well lit at night and designed as open / safe routes, in order to capitalise on the benefits of passive surveillance.

Vehicular links across the river would put pressure on existing local residential streets and are therefore not supported. Adequate traffic capacity exists to accommodate new entry points onto the Great Ocean Road with appropriately designed intersection treatments to cater for expected turning movements.

Any additional development / greater usage at the harbour and existing golf course location will focus attention on the need to review the design of the Great Ocean Road / Nelson Street intersection. This would appear to be the most sensible access point to the precinct. Nelson Street should also incorporate new pedestrian bicycle facilities along its length from the Great Ocean Road intersection to Trafalgar Street. Traffic access to the Great Ocean Road using Noel and Gambier Streets should be discouraged.

A recent Planning Panel made the following assessment of the traffic impacts that would be caused by the proposed development to the north of Marriners Lookout Road (Mariners Vue): "The Panel considers that both existing and future traffic provisions on Marriners Lookout Road, and at the intersection with the Great Ocean Road, would be adequately catered for with both the widening proposed by the proponent for the former and the recently completed intersections works at the latter."

Objective

Manage the orderly flow of traffic at all times of the year and enhance pedestrian safety and movement.

Strategies

- Improve traffic function at the Nelson Street / Great Ocean Road intersection:
  - East leg – Investigate the short-term provision of a right turn lane into Nelson Street (south to east and investigate a longer term solution of a single lane roundabout at this location, to service future development at the harbour area).
  - West leg – Maintain and enhance the current channelisation of Nelson Street around the memorial statue to reduce vehicle speeds and improve pedestrian crossing opportunities. Should the one-way option be approved by VicRoads, adjust the channelisation of of Nelson Street/Great Ocean Road around the memorial statue to direct north-bound traffic into Pascoe Street to cater for the one-way south-bound flow on the Great Ocean Road.
- Investigate the application of a variable speed limit through the retail area of Apollo Bay from 40 km/hr during peak pedestrian activity periods to 50km/hr (current speed limit) at other times.
- Improve local traffic access throughout the settlements, particularly between the north of Apollo Bay and the Town Centre to the rear of the settlement.

Parking

Parking availability in Apollo Bay varies throughout the year. There is high demand and limited capacity during the summer months, school holidays and on weekends, because of the additional tourists and holiday home owners. In other parts of the year there is substantial capacity for parking which was also noted during the field survey. It is recognised that there is a need to provide additional parking facilities, to cater for the influx of motorists in the peak tourist times.

Providing additional formalised parking facilities is not an efficient use of infrastructure as it is unoccupied for the majority of the year. When it is unoccupied, it is often visually obtrusive, particularly if it is asphalted and located in a predominantly natural or prominent location. It is even more dominant if there is a lack of landscaping between car parks or aisles.

The amount of unoccupied land in the foreshore reserve and its central location, would, at first glance, make it an ideal location for additional parking. However, it is one of the key attractions of the town because of its open, grassed setting and recreational opportunities. This could potentially be affected by additional asphalt or gravel car parking, which may urbanise the natural setting, and also create an impediment to pedestrian movement and activity.

There may be opportunities for additional car parking in areas away from the foreshore reserve. There is a substantial amount of angled parking in Pascoe Street, which is a convenient distance from the shops and foreshore. Additional signage could be used to direct motorists to this parking for overflow during peak periods. There is some vacant land at the rear of shops that could also be potentially made available when needed. Short-term parking for visitor to the harbour area could be located along Nelson Street (east end).

The Council prepared a Parking Precinct Plan in 2001, which proposed mid block car parks between the Great Ocean Road and Pascoe Street, funded through a special rate or charge, among other recommendations. The Short Term objectives of this Plan should continue to be implemented to provide for the future parking needs of the township, although its implementation should ensure that development is able to occur above the mid block car parking to ensure the objectives to consolidate the town centre are not compromised. The Medium Term objectives of the Parking Precinct Plan are no longer considered appropriate, specifically those aimed at Council acquisition or leasing of land for car parking development, or application of Special Rate or cash-in-lieu schemes.

Objective

Ensure the future parking needs of Apollo Bay are met and parking congestion in the Great Ocean Road is minimised.

Strategies

- Implement or complete implementation of the key Short Term objectives of the Parking Precinct Plan for the Apollo Bay town centre, namely:
  - Improved management of existing on-street parking facilities by line marking additional parking spaces in Pascoe Street, Moore Street and McLaren Parade. This should now include investigation for additional carparking opportunities in the town centre, on the Great Ocean Road, in conjunction with a southbound one-way scheme between Thomson Street and Nelson Street.
  - Seal, line mark and provide directional signage to Council's current carpark at 14 Pascoe Street.
  - Application of new parking provision rates.
  - Review of bus set down and pick up areas in conjunction with the implementation of the one-way scheme on the Great Ocean Road. Provision to be made for passenger set-down / pick-up only on the Great Ocean Road and longer term bus parking to occur at the southern end of Pascoe Street.

- Improve general signage directing traffic to on-street car parking in Pascoe Street – in order to offer alternatives for motorists when parking along the Great Ocean Road is at, or close to, capacity.
- Utilise signage to direct motorists to the Council owned car park in Pascoe Street to encourage use for overflow parking during peak periods.
- Ensure that new development in the Apollo Bay town centre meets the car parking requirements specified in the Parking Precinct Plan, where practical.
- Formalise existing car parks and investigate sealing the surface in front of the visitor centre and the public toilets near the eastern leg of the Great Ocean Road/Nelson Street intersection.
- Investigate options to obtain more public parking on private land at the rear of shops.
- Replace bus parking area in Moore Street with car parking, following provision of designated long-term parking in Pascoe Street and conversion of Great Ocean Road to one-way.

Public Transport

V/Line buses link Apollo Bay to Melbourne (with trains servicing the Geelong – Melbourne link). There appear to be two main stopping areas for V/Line buses. The main bus stopping area is located adjacent to the Great Ocean Road Visitor Information Centre and provides seating and shelter as well as comprehensive timetable information. A second area is located at the northern end of Apollo Bay near the Pisces Holiday Park but lacks seating and shelter, has a poor surface – although it also has comprehensive timetable information. There is an opportunity to upgrade this second area with shelter / seating and an improved lay-by area for buses – well clear of the moving traffic on the Great Ocean Road.

Tourist buses regularly stop in Apollo Bay. Designated on-street bus parking areas have been established in Moore Street and Pascoe Street. Signage on the Great Ocean Road directs buses to these areas and they appear to be well utilised.

Improved public transport linkages are sought by the community and links to Warrnambool and Colac are sought in particular. The Council can undertake an advocacy role in seeking to establish these routes as part of the wider transport improvements, recognition of the need to reduce dependence on the private car, and the future growth intentions for Apollo Bay.

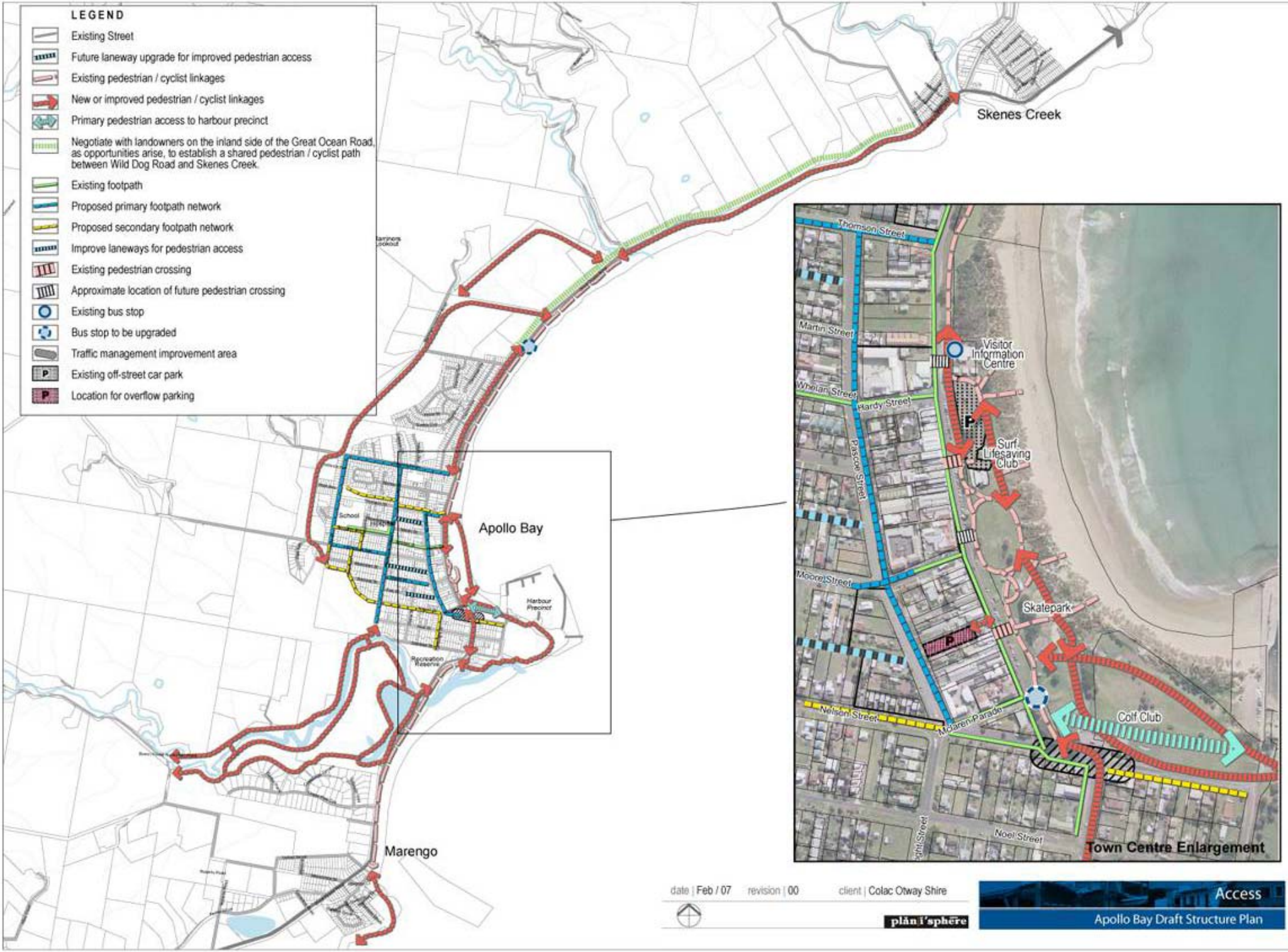
Objective

Support, promote and improve public transport.

Strategies

- Provide seating and shelter with timetable information and an improved lay-by area for the bus stop at the northern end of Apollo Bay.
- Support the continuation and extension of the Chamber of Commerce operated shuttle bus service between the three settlements during summer.
- Investigate opportunities and the need for a year round community bus service between the settlements to service local residents and reduce car dependency and social isolation.

- Advocate to the State government the provision of daily bus services between Apollo Bay and Warrnambool to complement new and increased services planned as part of the “Grampians Link”.
- Advocate to the state government increased public transport services to Colac from Apollo Bay.


LEGEND
Existing Street
Future laneway upgrade for improved pedestrian access
Existing pedestrian / cyclist linkages
New or improved pedestrian / cyclist linkages
Primary pedestrian access to harbour precinct
Negotiate with landowners on the inland side of the Great Ocean Road, as opportunities arise, to establish a shared pedestrian / cyclist path between Wild Dog Road and Skenes Creek.
Existing footpath
Proposed primary footpath network
Proposed secondary footpath network
Improve laneways for pedestrian access
Existing pedestrian crossing
Approximate location of future pedestrian crossing
Existing bus stop
Bus stop to be upgraded
Traffic management improvement area
Existing off-street car park
Location for overflow parking
Skenes Creek
Apollo Bay
Marengo
Harbour Precinct
Recreation Reserve
School
Thomson Street
Martin Street
Whelan Street
Hardy Street
Pascoe Street
Moore Street
Nelson Street
Noel Street
Visitor Information Centre
Surf Lifesaving Club
Skatepark
Golf Club
Town Centre Enlargement
date | Feb / 07
revision | 00
client | Colac Otway Shire
plan i'sphere
Access
Apollo Bay Draft Structure Plan

5. Implementation

There are a number of elements to the implementation of a Structure Plan. Many are statutory in nature, where a planning scheme amendment is required to introduce matters to limit development, encourage other forms and provide guidance for the Council in decision making. Some of the other recommendations are non-statutory in nature, requiring the Council to work with other authorities or groups, or advocate to government on behalf of its constituents to achieve a desired outcome.

Statutory Implementation Recommendations

MSS Changes

The new MSS currently in preparation by the Shire should include a section on Apollo Bay/Marengo/Skenes Creek. The objectives of the Structure Plan should be included here. A map of the settlement boundaries should also be included, once it is determined which of the scenarios is appropriate.

The *Implementing a Coastal Settlement Boundary Practice Note* recommends that the final extent of the settlement boundary be mapped along a cadastral element such as a lot boundary, road or waterway. In this instance, utilising the 'break of slope' contours (between the 40-50 metre contours) to define the boundary will be more appropriate where urban development would meet the foothills.

Depending upon the structure of the MSS and current advice from the DSE it may also be possible to include some of the matters indicated as Policy into the MSS. However at this point it is considered that the matters recommended for inclusion in Policy are too detailed, and intended for direction of discretion, for inclusion into an MSS.

Policy

Neighbourhood Character Policy

A policy is required for the neighbourhood character guidelines for Apollo Bay and Marengo (i.e. the exhibited amendment as changed to reflect the Structure Plan recommendations – see below).

Apollo Bay Area Activity Centre Policy

A policy will also be preferable to control land use and building design in the Apollo Bay town centre. The policy will:

- encourage consolidation of the existing centre as contained in the Strategies in Section D. *Commercial and retail activity*,
- discourage retail and commercial acivity in Skenes Creek and Marengo other than local convenience facilities.
- encourage implementation of the short term actions of the Parking Precinct Plan.

Ecologically Sustainable Design Policy

A further policy should be implemented to introduce the Sustainability Initiatives contained in Section B; *Capacity of existing infrastructure*.

Zoning

Rural Conservation Zone

Retain the Rural Conservation zone extent and minimum lot size contained in the schedule as it currently exists in the planning scheme.

It would be preferable to require a permit for a greater range of buildings and works within the part of the Rural Conservation zone within the Study Area, however as the schedule is a clumsy tool for this purpose, a Significant Landscape Overlay is recommended for this purpose.

Business

No further expansion of the business zone in Apollo Bay town centre should be supported at present. Following demonstrated capacity of the existing Business zone, rezoning of existing Residential 1 Zone land may be appropriate to the north of the town centre, extending to Thompson Street.

Encourage non-residential uses to locate adjoining the business zone, fronting Pascoe Street and Great Ocean Road between the centre and the service station.

No business zoning is required in Skenes Creek or Marengo. A Convenience shop or food and drink premises are allowable within the Residential 1/3 and Township zones. These are the likely and suitable commercial activities for these settlements.

Residential

Rezone Skenes Creek to Residential 1 (from Township zone) when the sewer is connected. The area is primarily residential and there appears to be no reason to allow a wider variety of uses as enabled in the Township zone.

The application of the Residential 3 zone to all Residential 1 areas in Apollo Bay, Marengo and Skenes Creek has been considered, primarily as a method to implement the maximum building heights proposed. The Residential 3 zone limits the height of buildings to an absolute 9m (10m on sloping sites). The advantage offered by this zone is the ability to insert variations to ResCode to increase side setbacks, reduce site coverage etc.

The disadvantages of this zoning are that the controls applied in the zone would also apply to all areas of the Shire where a Residential 3 zone might be considered. It is not possible from the completion of this study (and the Coastal Townships neighbourhood Character Study) to determine whether this is a suitable solution for the Shire, or whether it could restrict future options in the other urban centres of the Shire. Therefore the Design and Development overlay is the preferred method to implement the recommendations of the Structure Plan for the residential areas of the Study Area. While ResCode variations cannot be achieved through the Overlay, similar built form requirements and considerations can be built into the controls.

Overlays

Significant Landscape Overlay

The GORRLAS recommended a SLO be applied to the whole of the area surrounding all three townships/settlements, extending well outside the study area for the Structure Plan, and covering all the land zoned Environmental Rural Zone (at the time, now within the Rural Conservation Zone). This recommendation is supported, however, the SLO required for the Study Area may differ from that required for the remainder of the GORRLAS Study Area. On this basis a Significant Landscape Overlay is proposed for the Study Area between the settlement boundary of Apollo Bay and Skenes Creek. The SLO schedule will require a permit for:

- All buildings and works (including outbuildings over 10 sq.m.)
- All earthworks that alter the natural landform

The SLO will contain the Strategies relating to this land contained in Section A: *Development between settlements*.

The proposed Great Ocean Green development between Apollo Bay and Marengo is seeking a rezoning to Comprehensive Development zone. This zone should include the Strategies relating to this land contained in Section A: *Development between settlements*.

Should this development not proceed and Scenario 3 be realised, the application of a SLO to the land identified for future development, with a schedule containing these requirements is recommended.

Design and Development Overlays

Introduce a Design and Development Overlay for the Residential 1 zoned land in Apollo Bay indicated on the Buildings in Town Centre map as Area D, Marengo and Skenes Creek to contain:

- mandatory 9 metre and preferred maximum 8 metre height limit for residential development)
- decision guidelines that reference the need to achieve exemplary design quality to exceed the 8 metre limit.
- the minimum subdivision area restrictions and other controls proposed by Amendment C21 but modified to reflect the objectives of this Structure Plan in relation to medium and high density housing in and near the town centre. This acknowledges that the proposed 450 sq m controls will assist in meeting Council's preferred housing objectives for the town and assist in delivering a range of housing diversity in Apollo Bay.

Introduce a Design and Development Overlay and Schedule for the Business 1 zoned land and the Residential 1 zoned land immediately surrounding the centre indicated as Areas B and C on the Building Heights in the Town Centre map in Section. The DDO schedule will contain

- mandatory and preferred maximum building heights as contained in Section C: *Building heights in the town centre*
- detailed guidelines for built form of the centre and Crime Prevention Through Environmental Design contained in the Strategies in Section D. *Apollo Bay town centre streetscape* and *Building design in the Town centre.*
- The Settlement and Town Centre Entrance Guidelines contained in Section A. *Landscape Setting and Environment*

Environmental Significance Overlay

The C29 Directions Report indicates that an Environmental Significance Overlay (ESO) should be applied to land that has been identified as being affected or potentially affected by Acid Sulfate Soils. A schedule to the ESO should be applied to these areas, as identified by the DPI Acid Sulfate Soil Mapping Project and the further work undertaken as a part of the Amendment C29 process, to trigger a permit requirement for development which may disturb these soils. This would be used to avoid disturbance of these soils and to ensure that management plans are in place to monitor, manage and rectify any inadvertent on- and off-site impacts.

In addition, an ESO has been identified by Barwon Water to be applied to the Special Water Supply Catchment (to be declared). A new schedule to the ESO would be prepared in collaboration with Barwon Water, in order to protect the catchment and ensure water quality.

Airport Environs Overlay

In accordance with the Apollo Bay Airfield Development Review, modify the Airport Environs Overlay 2 in the Colac Otway Planning Scheme to accord with the ANEF 15 contour.

Neighbourhood Character Study Finalisation

The Apollo Bay and Marengo Neighbourhood Character Study was completed in 2003, with an amendment to implement its recommendations exhibited in 2004 as amendment C21. This amendment has now lapsed. The finalisation of the Neighbourhood Character Study will therefore require updating the data and any neighbourhood character descriptions or future preferred character statements, prior to re-exhibition. It would also be prudent to review the submissions received during the exhibition process to determine whether any of the issues raised can be resolved in the new amendment before exhibition. In addition the Neighbourhood Character Update should confirm the appropriate minimum lot size and identify additional controls such as front and side setback, and site coverage controls that are appropriate for inclusion in a DDO.

The amendment content should be changed to reflect the recommendations of the Structure Plan by:

- Removing the areas designated B and C on the map in Section C: Settlement Character and Form from the relevant Neighbourhood Character Precincts and the Neighbourhood Character Policy.
- Neighbourhood Character update should review and identify Preferred Character Statements and Design Guidelines for Precincts 3 and 5 of the NCS.
- Extend the boundary of Precinct 3 up to Murray Street to include all the area identified as C on the Buildings in the Town Centre Map.
- Including in the DDO to apply to the Residential 1 zoned areas, setback and site coverage requirements as permit triggers and /or decision guidelines.
- Including in the DDO to apply to the Residential 1 zoned areas for Precincts 1, 4 7 and 8 of the NCS, minimum areas for subdivision and other controls in accordance with the updated Neighbourhood Character Study and Apollo Bay Structure Plan to achieve Council's preferred housing strategy for Apollo Bay.

- Developing detailed design guidelines for these areas similar in format to the Neighbourhood Character Precinct guidelines for insertion into a Design and Development Overlay schedule applying to these areas.

The amendment will then require exhibition. It is suggested that this could be undertaken as part of the other planning scheme changes required to implement the Structure Plan recommendations.

Other implementation mechanisms

Some of the initiatives of the Structure Plan cannot easily be implemented by a zone, overlay or local planning policy (either LPP or MSS), and other implementation mechanisms will be needed. For example, it may be difficult to achieve a higher level of water conservation initiatives than required by the standard State wide provisions of Clause 56, or through local policy (as a planning permit may not be required). Therefore, the use of Section 173 agreements, restrictive covenants or Local Laws will need to be further considered to assist in implementing important elements of the Structure Plan. Other Strategies require the Council to advocate for changes or work with other authorities to achieve the desired outcomes. Where other techniques are required the suggested methods are identified in the Action Plan.

Seek an amendment to the planning scheme to require a 10% public open space contribution for all residential subdivisions. This may require further justification through detailed assessment of current open space provision.

6. Monitoring and Review

The achievement of the objectives and strategies of the Structure Plan should be monitored on an annual basis, with a review of the Structure Plan to take place every 5 years. Each 5 yearly review should ensure that the objectives and strategies are up to date and reflect new and emerging planning policy and issues, to ensure that the Structure Plan remains a flexible and relevant planning instrument while at the same time providing certainty about the future development of the area to the community and Council.

7. Action Plan

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Maintain the sense of 'green breaks' and landscape dominance between the settlements to ensure that each settlement remains distinct.				
Discourage further subdivision of lots less than 40 hectares between Apollo Bay and Skenes Creek, by maintaining the minimum subdivision areas under the Rural Conservation Zone.	Zone schedule	Council	DSE	High
Minimise the visual impact of new development between Apollo Bay and Skenes Creek particularly when viewed from the Great Ocean Road, by requiring that any new development: – Is set back substantially from the property frontage (approximately mid way between the frontage and the 'break of slop' between the 40-50 metre contour line, as defined on the Landscape and Environment Map) and from side property boundaries. – Is sited within the landform and reflects the slope of the site, to ensure the built form is recessive in the landscape context. – Sites buildings with existing vegetation and utilises informal new landscaping to screen the development from views from the Great Ocean Road and other public view points, while highlighting the topographic features of the site. – Clusters buildings together, avoids single monolithic buildings, and uses modest, low profile building forms. – Sites development away from ridgelines and protects the creek valleys from development, and avoids building on ridges, local hilltops or prominent hill faces. – Minimises the impacts of features such as fences, property boundaries and driveways, and avoid highlighting these features through the use of formal landscaping or rows of trees (in particular conifer shelter belts) along their alignment. – Uses muted, coastal recessive tones and colours and non reflective materials to assist in blending the development into the landscape context. – Provides minimal, low impact signage. – Utilises low impact lighting, such as sensor lights/down lights, to minimise light spillage and visibility. – Avoids solid gateways along the Great Ocean Road and the use of solid fencing, particularly for property boundaries. – Avoids heavily manicured landscaped gardens close to the Great Ocean Road. – Uses indigenous vegetation in naturalistic planting patterns, in the revegetation of stream lines, swales and higher land.	SLO	Council	DSE	High
Strengthen the landscape qualities of the Barham River valley through planting of appropriate vegetation and minimising changes to the landform.	SLO	Council	DSE	High
Require that any new subdivision and development between Apollo Bay and Marengo: – Maintains the sense of a landscape dominated 'green break' when viewed from the Great Ocean Road between Marengo and Apollo Bay, locating as much "green" open space as possible adjacent to the Great Ocean Road to maintain the impression of separation of the two	CDZ or SLO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
settlements. – Largely restricts residential development to the area north-west of the Barham River (as an extension primarily to Apollo Bay) and the area immediately adjoining the low density area of Marengo. – Maintains a substantial green view corridor across the valley from the key viewing points at the southern edge of Apollo Bay. – Provides easy public access to the Barham River and new public open space, particularly for pedestrians, and shared pathways that link to the local network. – Fronts buildings onto all or most open space and golf course areas to increase passive surveillance, community safety and use of the space. – Includes substantial tree planting in the early stages of the subdivision, to provide a screen to new development as it is progressively constructed. – Concentrates new development close to the existing urban area of Apollo Bay, with higher densities closest to the town. – Limits building heights to 8 metres above natural ground level, with substantial building articulation in the upper level. – Utilises natural colours and materials that reflect those found in the local landscape, and avoids the use of reflective materials. – Minimises the need for earthworks or fill by developing land that is elevated and using lower lying land for public open space and environmental processes. – Addresses flooding issues, including any increased offsite flooding risk as a result of the development. – Addresses sedimentation impacts on the estuary and ocean, by trapping particulates and filtering runoff prior to discharge.				
Implement the recommendation in the Great Ocean Road Region Landscape Assessment Study, to prepare an amendment to introduce the Significant Landscape Overlay (SLO) to private land within the Rural Conservation Zone (both within and outside of the Study Area). The planning controls should recognise and protect the National significance of the Apollo Bay, Marengo and Skenes Creek landscape and enable greater discretion to be exercised by Council over the form of development that can occur in this area, by: – Requiring a permit for all buildings and works. – Requiring a permit for all earthworks. – Specifying maximum dimensions for an outbuilding before a permit is required for construction. – Specifying landscaping requirements for new development to achieve informal plantings of indigenous vegetation, which reinforces the landscape values of the precinct.	SLO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
In addition to the above, require that any development on the south-east side of the Barham River (and 350 metres or greater from the Great Ocean Road) associated with the Great Ocean Green: – Is limited to single dwellings with a building height of no more than 4.5 metres above finished ground level, so that roofs are concealed below the tree canopy of the revegetated areas. – Ensures that planting is commenced well in advance of the development taking place, particularly within the 350 metre buffer and close to the proposed development, to create a partially established screen prior to development. – Ensures that, at a minimum, a 25 metre buffer of Riparian Forest EVC is provided to the east side of any residential development, with varying vegetation heights to create an adequate screen from the Great Ocean Road. – Provides substantial vegetation, preferably of the same EVC, within each residential property.	SLO and CDZ	Council		High
Require developers to provide a realistic visual impact illustration of the view of the development from key viewpoints along the Great Ocean Road.	SLO and CDZ	Council		Med
Protect the Otway foothills as a scenic, undeveloped backdrop to Apollo Bay, Marengo and Skenes Creek.				
Limit urban expansion to below the 40-50 metre contour line or 'break of slope' where the urban areas adjoin the foothills	MSS	Council		High
Minimise the visibility of any development in the foothills and ensure that the built form is recessive in the landscape context when viewed from the Great Ocean Road and other public viewpoints by ensuring that it: – Is sited within the landform and follows the slope of the site, to minimise excavation and the use of elevated building platforms. – Does not result in the loss of indigenous vegetation or vegetation that would serve to screen the development. – Is limited to below the height of existing canopy trees, if present. – Utilises informal landscaping and new canopy trees to screen the development from views from the Great Ocean Road, while highlighting the topographic features of the site. – Minimises the impacts of features such as fences, property boundaries and driveways, and avoids highlighting these features through the use of formal landscaping or rows of trees (in particular conifer shelter belts) along their alignment. – Uses muted tones and colours and non reflective materials to assist in blending the development into the landscape context. – Incorporates driveways that follow the contours to minimise cut and fill. – Minimises the use of paving or other hard surfaces. – Places restrictions on the construction of tennis courts, swimming pools and other buildings and works that would require substantial excavation and use of retaining walls.	SLO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Encourage the revegetation of the Otway foothills with indigenous trees and understorey vegetation to assist in reinstating the original habitat, improving stability, and reducing erosion and the spread of weed species.	Education and incentive programs	Council	DSE	
Encourage land owners to manage and progressively eradicate weed species on private land, through educational programs and incentives, and where necessary seek to enforce the legislated responsibilities of property owners under the Catchment and Land Protection Act 1994.	Publications and information	Council	DPI & CCMA	On-going
Restrict further subdivision and small lot excision in the Otway foothills.	MSS	Council		High
Limit development of the foothills to single dwellings on rural allotments and low key agricultural uses.	MSS	Council		High
Recognise and protect ecological values and avoid development in areas at risk from the effects of flooding, wildfire, acid sulfate soil disturbance, erosion, landslip and salinity.				
Implement the Management Action Plans that have been prepared for the Barham River, Skenes Creek and Wild Dog Creek.		Council	CCMA	On-going
Implement the relevant objectives and recommendations of the Central West Victoria Estuaries Coastal Action Plan (2005) and the Central West Victoria Regional Coastal Action Plan (2003).		Council	WCB, FMC, CCMA	On-going
Ensure any new development in flood affected areas and near estuaries and water courses demonstrates how the objectives of the Apollo Bay Estuaries Management Action Plan (Chris Harty Planning and Environmental Management, 2003) and the Skenes Creek to Marengo Coastal Action Plan will be achieved.	MSS, Planning Permig approval processes	Council		High
Provide an appropriate indigenous vegetated buffer of pre 1750 EVCs of at least 50 metres from either side of the Barham River and 10 metres from either side of Anderson Creek, and ensure that this buffer is maintained free of development in order to recognise and protect the ecological function of the estuary and floodplain.	SLO	Council		HIgh
Ensure that any development within the Barham River floodplain is constructed at least 600mm above the 1 in 100 year flood level, and avoids the need for significant use of fill where possible.	SLO	Council		Council
Ensure that any development within the Barham River floodplain: – Achieves a significant improvement to the environmental values of the estuarine, riparian and terrestrial environment, including the reinstatement of indigenous vegetation. – Protects the remnant Estuarine Wetland and Coastal Dune Scrub existing on the site. – Adequately monitors, addresses and manages issues of altered flood patterns (both on- and off-site) and increased nutrient loads in water ways, and is constructed and managed in accordance with recent best pracitice stormwater runoff guidelines.. – Maintains the continuation of the natural cycle of wetting and drying of the estuary and that the development can continue to function while the estuary is in a period of inundation.	SLO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
– Includes the development and implementation of an Environmental Management Plan, Construction Management Plan and Flood and Inundation Management Plan, including regular water quality monitoring and annual fish surveys of the Barham River and Anderson Creek. . – Mitigates potential additional flooding of surrounding land, particularly the recreation reserve (e.g. contribution to levee banks and/or drainage).				
Encourage the revegetation of river and creek valleys and gullies with indigenous vegetation.	MSS, education and incentive programs, permit approval process.	Council	DSE, CCMA	On-going
Introduce an appropriate schedule to the Environmental Significance Overlay to the areas affected or potentially affected by Acid Sulfate Soils, as identified by the Department of Primary Industries Acid Sulfate Soils Mapping Project, in order to trigger a permit requirement for any development that would involve excavation and potentially expose these soils (including for the construction of water retention areas).	ESO	Council	DPI	Medium
Ensure that areas identified as containing or potentially containing Acid Sulfate Soils are tested prior to approval of any development, and where found to be present, that these Acid Sulfate Soils are not disturbed by development or works.	ESO	Council		High
Ensure that where development in areas of Acid Sulfate Soils is to be approved, that a condition on the Planning Permit requires that a management plan is put in place to ensure that any inadvertent disturbance of Acid Sulfate Soils is appropriately monitored, managed and rectified for both on- and off-site impacts.	Permit approval process	Council		High
In collaboration with the CFA continue to manage wildfire risk through the application of the Wildfire Management Overlay, including periodically reviewing these areas to ensure the Wildfire Management Overlay is applied to appropriate areas.	WMO	Council	CFA	On-going
Provide information to residents and landowners about CFA publications and educational programs to ensure the community is aware of wildfire risks and methods to reduce risk , including through appropriate management, selection and placement of vegetation and landscaping.	Publications	Council	CFA	On-going
Promote ecotourism opportunities in conjunction with a rehabilitated and revegetated Barham River floodplain, including nature walks, bird watching and canoeing.	MSS	Council		Medium
Maintain the Erosion Management Overlay on steeply sloping and unstable land surrounding the settlements.	EMO	Council		On-going
Where urban development of Apollo Bay abuts the 40-50 metre contour line or a steeply sloping part of the foothills, consider the need for a buffer area free of development to allow space for landslip debris in the event of slope failure and to reduce risk to life and property.	MSS/DDO	Council		Medium
Reinforce and enhance the identity and the sense of arrival and departure at the entrances to		Council		

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Apollo Bay, Marengo and Skenes Creek.				
Utilise signage and landscape techniques to signify the entry points of each settlement along the Great Ocean Road and Skenes Creek Road, as set out in *Settlement and Town Centre Entrance Guidelines*.	DDO	Council		High
Strengthen the distinct identity of each settlement at the entry points.	DDO	Council		High
Mark the entry points to the commercial and retail area of Apollo Bay with landmark buildings of excellent architectural quality, reflecting the seaside character of the centre (see *Landscape Setting and Environment* Map for more detail).	DDO	Council		Medium
Rationalise and coordinate the use of signage at settlement and town centre entry points – use a single sign only for each entry point.	DDO	Council		Medium
Introduce sign support for consistently designed festival or event signs as sign or banner sign at both entries to Apollo Bay	DDO	Council		Medium
Avoid locating a multitude of (public and private) signs in the vicinity of entrances.	DDO	Council		Medium
Remove redundant older signage.	DDO, education and incentives	Council		Medium
Improve the appearance and amenity of the foreshore reserve in Apollo Bay and reduce the impact of the existing and future structures on the naturalness of the setting				
Recognise that the primary management responsibility for the foreshore falls to the Apollo Bay and Kennett River Public Reserves Committee of Management.		FMC	Council	
Minimise further development of the foreshore area to ensure that it remains available for community use, recreation and tourism purposes.	Advocacy	FMC and DSE	Council	High
Ensure that any new buildings or structures within the foreshore area are appropriately sited and designed to reflect the valued characteristics of the Apollo Bay beach setting. Where new structures are necessary, these should be consistent with the *Siting and Design Guidelines for Structures on the Victorian Coast 1998*, in particular: – Set structures back from the shoreline as far as possible. – Structures should not impede public access to the beach. – Materials, finishes and structural design should be durable in the coastal environment, and be sited and designed for energy efficiency. – Drains, bridges, boardwalks and other structures should be designed so they are incorporated into the coastal landscape, rather than being stand alone structure.	Advocacy	FMC and DSE	Council	High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
– The form of new structures and the colours and textures used should maintain and enhance the established coastal landscape character and dominant forms, colours and textures in the surrounding environment. These should relate to the surrounding development as well as to the vegetation and landforms (dunes). – Where possible, structures should not impair views to the coast, in particular key views along identified accessways, and should enrich views to and from the coast. – The design of structures, outdoor furniture, signs and utilities should be visually coordinated. – Natural vegetation should be disturbed as little as possible, and natural regeneration and active revegetation with indigenous species should be encouraged. – Siting and design should be ecologically sustainable, and should recognise the significance of environmental processes such as the greenhouse effect and ozone depletion.				
Establish a town link for pedestrians and cyclists across the foreshore reserve from the southern end of the town centre of Apollo Bay (near Maclaren Street) to the harbour, incorporating clear viewlines, as shown in the *Harbour Concept Plan.*	Harbour Redevelopment Plan	Harbour Working Group	Council	Medium-High
Additionally, buildings and structures should be designed and detailed so they: – Are related to the path system and the town link at the southern end of the foreshore. – Are sympathetic to and complement the foreshore park landscape – Avoid dominating the open grassed areas. – Use robust and coastal environment materials, finishes and details in buildings and other structures. – Reflect and contribute to a robust foreshore design theme which takes its design cues form the successful visitor centre. – Use colours and materials which complement the coastal landscape setting such as galvanised corrugated iron, and natural finished or weathered timber.	Advocacy	FMC and DSE	Council	Medium-High
Improve pedestrian and cyclist connections through the foreshore reserve, particularly for north-south movements, linking the boardwalk to the north with the harbour to the south of the town centre. This should incorporate a continuous, direct path along the back of the dune and a second path on the road side of the foreshore reserve, as shown in the *Access* Map.	Capital works	Council		High
Investigate opportunities for the relocation or replacement of foreshore structures that detract from the landscape setting of the dunes and beach, are unsympathetic to their context, or obstruct key viewlines between the town centre and the beach. Where relocation or removal is not possible in the short term, utilise landscaping to screen these structures and soften their impact, and consider improvements such as repainting to assist in blending the structures into the landscape. Recommendations for each structure are listed below.		FMC	Council and DSE	Medium
Achieve improved visual and physical links between the Apollo Bay town centre and the beach, better manage weed species and increase indigenous vegetation on the dunes.				

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Formalise pedestrian accessibility from the town centre to the beach access points.	Capital works	Council		High
Investigate options to enhance visual and physical links between town centre and sea through alterations to dunes. This would require an Environmental Impact Assessment, economic feasibility assessment and further community consultation). As an initial action, seek advice from an expert in coastal processes/dune restoration in relation to cutting a single trail pedestrian and view corridor through the dunes.		FMC and WCB	Council	Medium
In collaboration with the Western Coastal Board and the Foreshore Management Committee investigate the feasibility and impact of initiating a program to better manage or eradicate marram grass (*Ammophila sp.*) from the foreshore and dune area and reintroduce indigenous grass and groundcover species, in order to reinstate a more natural dune system, slow (or potentially reverse) the growth of the dunes, and provide improved habitat for native fauna.	Feasibility assessment	FMC and WCB	Council	Medium
In collaboration with the Western Coastal Board and the Foreshore Management Committee and independently of any programs to eradicate marram grass , reintroduce further indigenous plant species, favouring those that are stronger competitors and would be able to co-exist with marram grass.	Future landscaping works/improvements	FMC, WCB and DSE	Council	Medium
Investigate the need for beach and dune stabilisation by way of a sea wall or other measures, particularly to the north of Apollo Bay where erosion is currently greatest.	Monitoring and further investigation	FMC, WCB and DSE	Council	Medium
Protect and enhance the significant views and vistas available from the settlements, the beach and the harbour, as well as the views available from key vantage points in the hills above the Study Area.				
Maintain public views to the coast and sea from the settlements.	MSS, DDO	Council		High
Strengthen viewlines between Apollo Bay town centre and the harbour.	MSS, capital works	Council	FMC and Harbour Working Group	Medium
Retain and strengthen key vistas and landmarks that assist in way-finding, in particular: – Vistas of the dunes and sea at the end of streets that run perpendicular to the coast (ensure these vistas are not obscured by new foreshore development). – Towards landmarks, such as the statue at the southern entrance to the commercial and retail area of Apollo Bay, and towards new built form or landscape elements at landmark sites.	MSS, DDO	Council		Medium
Provide adequate building articulation and intermittent gaps between upper levels (in particular third storeys) of new buildings in the town centre of Apollo Bay	DDO	Council		High
Ensure revegetation of hills retains views from key public viewing points	MSS, education	Council	DSE and Parks Victoria	Medium-high

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Maintain an undeveloped view corridor from the Great Ocean Road and/or Gambier St across the Barham River and floodplain to the foothills	MSS, CDZ/SLO	Council		High
– Recognise the role of built form in improving vistas or providing a focal point or terminal for key vistas, and encourage new development in key locations to consider and respond to this role, particularly: – On the hill visible from the southern approach to Apollo Bay (between Gambier St and Nelson St). – At the change in direction of the Great Ocean Road at the southern end of the commercial area of Apollo Bay (Nelson Street frontage). – At the harbour and Point Bunbury.	MSS, DDO	Council		Medium-high
Utilise natural boundaries, where appropriate, to define settlement edges and set limits to urban expansion.				
Apollo Bay: protect the foothills to the west, and ensure the ecological and drainage functions and landscape values of the Barham River valley are maintained or improved.	MSS, Zone	Council		High
Skenes Creek: protect the steeper part of the Otway foothills to the north.	MSS, Zone	Council		High
Marengo: protect the dense vegetation to west, south and north.	MSS, Zone	Council		High
Utilise policy to define settlement edges where a clear and suitably located natural boundary is not available.	MSS	Council		High
Define and maintain a hard edge to the urban area of each of the three settlements, particularly when viewed from the Great Ocean Road.				
Contain urban development within the coastal settlement boundary as defined on the Size of the Settlements Map, and allow for urban expansion in areas as indicated only when further land supply is required. (Refer to Accommodating Future Growth for guidance on increasing land supply).	MSS, Zone	Council		High
Restrict further greenfield low density housing opportunities within and outside the coastal settlement boundary.	MSS, Zones	Council		High
Utilise landscaping to soften and screen the hard urban edge, and to clearly differentiate urban from rural.	MSS, Capital works	Council		Medium
– Require that any extension to the existing urban area beyond Marriners Lookout Road to the north of Apollo Bay will: – Form a hard edge to the northern extent of the development, creating a boundary to the urban area of Apollo Bay. – Provide strong informal landscaping along this edge to differentiate between urban and rural. – Restrict development to below the 40-50 metre contour line, as defined on the Landscape Setting and Environment Map. – Utilise new landscaping and canopy trees within the development to screen the development	Amendment approval process/DDO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
from views from the Great Ocean Road and other key vantage points. – Avoid a low density form of development.				
Ensure that any proposal for development and use of land outside the coastal settlement boundary to the north of Apollo Bay is non-urban in appearance and function, and that any tourism related proposals meet the criteria contained within *Development between the settlements* above.	MSS/SLO	Council		High
Ensure that urban development results in the efficient utilisation of existing infrastructure and minimises the requirements for new infrastructure.				
Encourage new development to occur firstly in areas with existing infrastructure provision, and that any new infrastructure is efficiently provided and utilised.	MSS	Council		High
Encourage ecologically sustainable development that minimises water and energy requirements.	MSS, Policy	Council		High
In consultation with Barwon Water, ensure that an adequate water supply capacity is available prior to the consideration or approval of rezoning applications for further expansion of urban areas within the identified coastal settlement boundary.	Further discussion and investigation	Council	Barwon Water	High and on-going
Support the development of additional off-stream water storage to safeguard and facilitate future water supply to sustain the increased permanent and visitor population.	Further discussion with Barwon Water	Council	Barwon Water	High
Ensure that any development that would result in an extension of the urban area within the coastal settlement boundary is planned in collaboration with Barwon Water to ensure the capacity to provide sewage treatment and recycled water as required.	Further discussion with Barwon Water	Council	Barwon Water	High
Continue to prepare a Development Contributions Plan Overlay to enable the collection of a developer contribution for new infrastructure provision, and in the meantime negotiate with individual developers to ensure the Council and community is adequately compensated for resulting off-site infrastructure impacts.	DCP, Approvals process	Council		High
Encourage or require a high level of sustainability initiatives in the use and development of buildings, to reduce strain on existing infrastructure and the need for new infrastructure, in particular through Ecologically Sustainable Design, water conservation measures and Water Sensitive Urban Design, as set out in the box on the following page.	MSS, Policy	Council	Barwon Water, CCMA	High
Encourage new development to incorporate on-site effluent treatment facilities, where access to reticulated sewerage is not available.	MSS	Council		Medium
Discourage development of residential buildings within 300 metres of the Apollo Bay Water Reclamation Plant.	MSS, apply EPA guidelines	Council		Medium
Introduce a schedule to the Environmental Significance Overlay into the Colac Otway Planning Scheme for Barwon Water purposes to apply to the Special Water Supply Catchment (to be declared)	ESO	Council	Barwon Water	As required

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
in order to protect the catchment and ensure water quality.				
Establish a program of regular communication with service authorities on the strategic direction for the settlements to ensure that service and infrastructure provision is able to accommodate proposed growth.	Communication with service authorities	Council	Service authorities	High
Ensure that proposals to extend urban areas within the coastal settlement boundary ensure that power supply capacity is available and is provided to the site prior to commencement of development.	Communication with service authority	Council	PowerCor	High
Encourage infill development of medium density housing and accommodation within walking distance of the commercial area of Apollo Bay, to reduce the pressure to expand the urban area, and provide alternative housing choice.				
Encourage medium density housing which: – Is located close to the Apollo Bay town centre services and facilities. – Is respectful of the character of the township. – Incorporates sustainability initiatives, as discussed in Environmental Sustainability below. – Adds to the diversity of housing types and sizes, including affordable housing. – Provides appropriate setbacks and landscaping to integrate the development with the existing or preferred neighbourhood character.	DDO	Council		Medium
Limit any further extension of the current residential boundaries of Apollo Bay within the coastal settlement boundary until there is a recognised need for additional greenfield land, in terms of demand and declining land availability, affordability and opportunities for medium and high density infill development. Ensure proposals to extend the urban areas within the coastal settlement boundary provide appropriate strategic justification for new subdivisions in relation to these indicators.	MSS	Council		High
Undertake annual monitoring of the take up of residential land to determine land supply in Apollo Bay and enable the release of further land within the coastal settlement boundary in accordance with the Growth Scenarios discussion and staging of the release of land. Monitoring of indicators should include: new dwelling approvals, infill development in existing urban areas and projected population growth.	Council operations	Council		High
Restrict and discourage development outside settlement boundaries.				
Ensure that any application for development outside the coastal settlement boundary meets the identified criteria	MSS	Council		High
In the residential areas outside the town centre of Apollo Bay, limit building heights and ensure upper levels are well articulated to respect the character of the area.				
Limit building heights to 2 storeys and a mandatory maximum of 9 metres (and preferred maximum of	DDO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
8 metres) in residential areas outside the town centre.				
Ensure 2 storey buildings in these areas incorporate upper level setbacks and substantial articulation to reduce dominance of the upper level and impacts in terms of overlooking and visual bulk.	DDO	Council		High
Consolidate the town centre of Apollo Bay and provide a greater diversity of housing and accommodation at higher densities within and in close proximity to the commercial area.				
Encourage higher built form within the Business 1 Zone and in the residential zone within 400 metres of the commercial area of Apollo Bay, as indicated on the *Buildings in the Town Centre* Map.	MSS/Policy	Council		High
Introduce planning controls that include these varied height and setback controls into the planning scheme.	DDO	Council		High
Ensure that the primary objective of ensuring development complements the character of the township is emphasised in the controls.	DDO, MSS	Council		High
Alter the provisions of the proposed neighbourhood character controls as appropriate to implement these recommendations, including revision of proposed minimum lot sizes and other controls to facilitate a diversity of housing choice and implement the overall housing strategy.	DDO, Policy, revisions/review of Neighbourhood Character Study	Council		High
Require new development and streetscape works in the Apollo Bay town centre to build on and reinforce the fishing village coastal character of the township, and contribute to the creation of a vibrant public realm.				
New streetscape and landscape works should continue the theme of the recent works along the Great Ocean Road commercial frontage, incorporating high quality paving finishes, informal native and indigenous plantings of understorey vegetation and street trees, street furniture and footpath lighting.	Capital works	Council		Medium
New buildings or improvements in the Business 1 Zone must incorporate Crime Prevention Through Environmental Design initiatives to improve the safety, attractiveness and vibrancy of the public realm. In particular, buildings should: – Incorporate extensive areas of clear glazing, to enable views between the building and the street. – Minimise areas of blank walls, obscured glazing or window coverings that restrict views. – Provide active uses at ground level (particularly along the Great Ocean Road frontage), such as shop fronts, cafes and restaurants, or staffed offices. – Provide opportunities for passive surveillance of the streets and foreshore area by incorporating shop top housing in the commercial and retail area, and ensuring views are provided between these levels, to ensure a human presence in the commercial and retail area outside business hours. – Be constructed to the property boundaries at ground level, to provide a consistent street frontage and clear viewlines, with minimal doorway alcoves or other recessed areas which could provide	DDO	Council		Medium-high

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
opportunities for concealment.				
Incorporate weather protection (from sun, prevailing winds and rain) into new buildings and improvements to existing buildings where possible, in particular through the construction of continuous verandahs over footpaths along commercial frontages.	DDO	Council		High
Where footpath space is sufficient, encourage street dining, in accordance with the Disability Discrimination Act, to provide for increased activity in the town centre.	DDO, MSS/Policy	Council		Medium
New signage should be designed to: – Provide simple business identification details – Relate to use of the building on which it is placed – Avoid contributing to signage clutter – Avoid dominating buildings or the streetscape (in terms of size, shape, colours or graphic style) – Avoid obscuring views between buildings and the street – Avoid obscuring views of the foothills – Minimise the need for signage above verandahs.	DDO	Council	Apollo Bay Chamber of Commerce	Medium
Plan for the progressive replacement of Cypress trees through the town centre and along the foreshore, to ensure appropriate new species are established prior to the end of the lifespan of the existing Cypress trees.	Capital works, Council operations	Council	WCB and FMC	Medium
Reinforce and improve the informal character, accessibility and amenity of streetscapes in the residential areas of Apollo Bay, Marengo and Skenes Creek, reflecting the distinct existing and preferred future character of each settlement in new improvements.				
Work with the community and the Cosworks Parks and Gardens to determine appropriate street tree and vegetation species for future streetscape improvements and street tree planting.	Council operations	Council	Cosworks	On-going
Undertake a Pre Contact Heritage Study of the Study Area.	Council operations	Council	Local heritage society and aboriginal representatives	High
Increase street tree plantings of predominantly indigenous or native canopy trees in the residential areas of all three settlements , with informal alignments and a variety of species reflecting the differences between each settlement. Refer to *Residential Street Tree and Landscaping Guidelines.*	MSS, Capital works	Council		On-going
Provide informal landscaping with indigenous plantings and seating at key nodes in residential areas, especially in larger street reserves, to create “Pause Places” (for passive recreation as well as resting places for pedestrians).	Capital works	Council		Medium
Construct paved or compacted gravel footpaths along key pedestrian routes in Apollo Bay as recommended in *Access,* utilising natural colours and possibly a gently meandering alignment, in order to draw the themes of the foreshore and beach through to the residential areas and provide	Capital works	Council		Medium-high

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
improved accessibility.				
Maintain a sense of openness in residential streets in Apollo Bay by retaining the wide, grassy verges (with frequent absence of kerb and channel), but also: – Improve road edges (e.g. with rollover kerbs) or install sediment traps to reduce sediment load on waterways (particularly along sloping roads) – Progressive introducing indigenous landscaping and grass species to provide water efficient streetscape improvements and reduced maintenance, while maintaining a continuous path of travel along nature strips for pedestrian use.	Capital works	Council		Medium
Extend the indigenous roadside vegetation and natural streetscapes of Skenes Creek found in Neighbourhood Character Precinct 1, and build on this element of difference that distinguishes Skenes Creek from the other settlements.	Capital works	Council		Medium
Review Neighbourhood Character Precincts 1, 3, 4 and 5 for Apollo Bay and realign the precinct boundaries to reflect the newly defined town centre, and update the Preferred Character Statements to identify the objective of the Structure Plan to encourage increased residential densities in and around the town centre.	Council operations	Council		High
Implement the Neighbourhood Character Design Guidelines for Apollo Bay and Marengo (as adopted by Council on 9 October 2003) in residential areas outside the town centre (400m radius of commercial core), in particular: – Introduce a Design and Development Overlay to limit building heights to 9 metres outside the town centre. – Introduce a Neighbourhood Character Policy applying to the residential area of Apollo Bay and Marengo, setting out the preferred neighbourhood character, objectives and design responses for each precinct, to be achieved by new development and minimum subdivision area and other controls to achieve the broader housing objectives and needs.	Council operations, DDO, Policy	Council		Medium-high
Implement the Neighbourhood Character Design Guidelines for Skenes Creek, when approved	Local Policy, Overlays	Council		Medium-high
Utilise landscaping techniques to signify the transition from the urban character of the town centre of Apollo Bay to the holiday house suburban character, including wider footpaths and more formalised coastal street tree plantings in the town centre, and less formal footpath and street tree alignments in the surrounding residential areas.	Capital works	Council		Medium
Achieve excellent architectural quality in new development or improvements to existing buildings in the town centre of Apollo Bay, drawing on the existing valued qualities of the centre and setting a new direction in the use of innovative, high quality design.				
Ensure that new buildings and substantial extensions to existing buildings in the town centre: – Use simple building details.	DDO	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
– Use a mix of contemporary and traditional coastal materials, textures and finishes. – Utilise colours and finishes that compliment those occurring naturally in the area. – Provide articulated facades, incorporating setbacks to upper levels to reduce building bulk and overshadowing, and shop front windows at street level in commercial areas. – Provide articulated roof forms on new developments to provide visual interest to the street. – On larger sites, articulate facades to emulate the fine grain (narrow frontage) subdivision pattern in the centre. – Orientate commercial buildings towards the street and provide the entrance to the building directly from the street frontage. – On corner allotments, ensure buildings address both streets frontages with shopfront windows at street level. – Are built to the property boundary at ground level in the commercial area, or are stepped to match existing setbacks if these are varied. – Design buildings for energy efficiency, considering solar access and utilising sustainable energy and construction techniques wherever possible.				
Promote Apollo Bay, Skenes Creek and Marengo as leaders in environmental sustainability within the Great Ocean Road Region and improve the ecological integrity of environmental features within and around the settlements.				
Building on the "Naturally Progressive" theme of the Colac Otway Shire, and the "Health and Wellness" theme of the Apollo Bay Chamber of Commerce, develop and promote Apollo Bay, Marengo and Skenes Creek as 6 star settlements, with a strong focus on Ecologically Sustainable Development and Design, and strengthening the eco-tourism advantage of the settlements.	MSS, Council operations, publications	Council		Medium
Incorporate WSUD techniques into new developments as outlined in the 'Capacity of Existing Infrastructure' section of the Structure Plan.	Policy, DDO	Council		High
Incorporate Environmentally Sustainable Development practises into new developments including: – Orientation of allotments and buildings to maximise passive solar heating and cooling. – Maximise north facing daytime living areas and outdoor spaces. – Orientation of windows to maximise sunlight in winter and cross-ventilation in summer. – Use of appropriate glazing products to contain heat in winter and release heat in summer. – Internal room layout to maximise sunlight through the building. – Appropriate use of thermal massing in external building materials. – Appropriate use of insulation in the walls, ceilings and floors. – Use of shading in buildings and outdoor spaces with external shading or planting, to reduce heat gain in summer. – Best use of the site to maximise retention of existing vegetation and landscape design that assists in passive solar heating/cooling. – Use of alternative renewable energy sources such as solar power. – Use of energy efficient appliances and lighting.	Policy, Local Law	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
– Use of solar hot water systems or energy efficient gas or electricity systems. – Installation of rainwater tanks for domestic and garden use. – Use of water efficient showers, taps, toilets and appliances. – Re-use of stormwater on site by minimising areas of impervious surfaces, and grading impervious surfaces to drain to planted areas. – Planting hardy plants such as natives that require less watering, mulching and reducing lawn areas. – Grey water recycling. – Use of building materials with minimal environmental impact such as recycled materials and re-use of existing buildings where possible. – Design of buildings for future re-use and adaptation for expansion. – Managing environmental and social impacts on the construction site through erosion control, retention of existing vegetation, waste management, noise control, and sediment control.				
Encourage revegetation of the foothills where possible with appropriate species that provide habitat for wildlife and assist in re-establishing indigenous vegetation and eradicating weed species.	MSS	Council	DSE	Medium-high
Ensure the continued protection and enhancement of the Marengo Flora Reserve and Marengo Forest.	Zone	Parks Victoria	Council	High
Protect Rufous Bristlebird habitat south of Panorama Crescent.	ESO	Parks Victoria	Council	High
Intensify commercial and business land uses within the commercial area of Apollo Bay and ensure a future supply of Business Zoned land to meet demand				
Encourage further residential development above ground floor shops and offices in the town centre, provided that the development must contain adequate sound insulation to minimise potential conflicts between legitimate commercial activity and residential amenity.	Policy, DDO	Council		Medium
Encourage increased usage of the rear of commercial premises fronting the east side of Pascoe Street (offices, services, car parking etc. with accommodation above), to fill empty gaps in the streetscape, promote a more contiguous built form, and create a viable secondary commercial strip for uses that do not require main road frontage (particularly those that serve a local rather than a tourist function).	Policy, DDO	Council		Medium
Encourage non-residential uses that are permitted under the Residential 1 Zone (e.g. home occupation, medical/health related uses) to locate on the west side of Pascoe St, to complement the commercial uses and benefit from the proximity to the town centre.	Policy	Council		Medium
Maintain the residential role of Marengo and Skenes Creek by continuing to focus retail and commercial development in the township of Apollo Bay, other than for small convenience type premises that may serve the local community.	MSS, Zone	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Consider extending the Business 1 Zone north to Thomson St (petrol station) when the existing commercial area is at capacity.	MSS	Council		Low
Develop the port vicinity with a tourism, fishing, boating, commercial and recreational focus strengthening links to the town centre of Apollo Bay and providing net community benefits.				
Implement the Guiding Principles	Harbour Redevelopment Plan	Council	Harbour Working Group	High
Ensure continued and improved air access to the region				
Continue to consider improved airfield options in the region with a view to either: – Upgrading the existing airfield at Marengo/Apollo Bay, – Relocating the airfield to an alternative location, or – Maintaining the existing airfield with limited use and developing an alternative for larger aircraft.	Further investigations	Council		Medium
Investigate the need for improved emergency helicopter landing facilities in Apollo Bay.	Further investigations	Council	Emergency services	Medium
If the airfield use is to be relocated, the land should become available for alternative public uses (recreation or open space) or residential development (Residential 1 Zone).	Zone	Council		Medium
Ensure that development of the airfield site does not occur on the airfield unless an alternative site is found and realised.	Zone, MSS/Policy	Council		High
In the case of a new airfield, establish linked bus services to Apollo Bay.	Council advocacy	Bus operators, VicRoads	Council	As required
In accordance with the Apollo Bay Airfield Development Review, modify the Airport Environs Overlay 2 in the Colac Otway Planning Scheme to accord with the ANEF 15 contour.	Overlay	Council		Medium
Encourage future recreation facilities to be located together with other community facilities in a central and accessible location. ***Ensure that community, health, education and recreation facilities are provided to meet the needs of current and projected future residents and visitors to the area.***				
Implement recommendations of the recreation strategy to meet the recreational needs of Apollo Bay, Skenes Creek and Marengo.	Recreation Study	Council		Medium
Explore opportunities to provide additional public open space and space for children's play away from the foreshore within residential areas.	Council operations	Council		Medium
Amend the Colac Otway Planning Scheme to require a 10% developer contribution for public open space in the form of suitably located and improved land, in preference to cash contributions for open	LPP, Planning permit	Council		High

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
space provision and improvements.	application process			
Explore the potential to create new open space areas or utilise existing non-traditional open space for public use, including around the Youth Club.	Council operations	Council	Youth Club	Medium
Provide recreational facilities to meet the needs of the permanent youth population.	Recreation study, further investigation	Council	Youth Club	Medium
In the provision of new playgrounds or refurbishment of existing playgrounds, ensure that some play equipment is provided for all abilities.	Recreation study, Capital works	Council		Medium
Ensure the retention and improvement of health and community services and facilities and educational facilities in the area, and ensure that these services and facilities are expanded to accommodate the needs of a growing population and visitor base.	Council advocacy, monitoring needs and further investigations	Health, education and community services and providers	Applicable government departments and agencies	High
Explore needs, opportunities and capacity to provide increased community facilities such as a permanent library, childcare centre, community health facilities, and arts and cultural facilities, particularly as the permanent population increases.	Council operations	Council	Local clubs, groups and associations	Medium
Support and promote the role of the Mechanics Institute as a key cultural facility for Apollo Bay.	Council operations	Council	Mechanics Institute	Medium
Explore opportunities and activities to foster a sense of community, belonging and connection, particularly as the community grows and changes with	Programs and community building initiatives	Council	Local clubs, groups and associations	Medium
Encourage the provision of services to support the ageing population, including aged care facilities, medical facilities and housing.	Council advocacy	Providers (including Council)		Medium-high
Continue to investigate alternative sites for the relocation of the pony club and ensure the continued availability of this foreshore land for public open space purposes.	Council operations	Council, Pony Club	DSE (re. Crown Land), Harbour Working Group	Medium
Support an alternative location for the golf course away from the foreshore reserve at Point Bunbury, where it would meet the objectives of this Structure Plan.	MSS	Council	Golf Club, DSE (re. Crown Land), Harbour Working Group	Medium
Investigate necessary improvements to the existing swimming pool and the need for a new swimming pool.	Council operations, capital works	Council		Medium
Provide seating and landscaping at key nodes along high pedestrian traffic routes, set within the wide street reserve, to provide small open space areas and rest stops for pedestrians.	Capital works	Council	VicRoads	Medium
Support the growth of tourism as a major employer for the region				

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Support and promote the Great Ocean Walk.	MSS, publications, promotion.	Council		Medium
Investigate the provision of long term car parking facilities for users of the Great Ocean Walk at the airfield or Marengo.	Council operations	Council	Parks Victoria	Medium
Encourage high quality tourist accommodation facilities (including 4-5 stars) to locate within the coastal settlement boundary.	MSS	Council	Tourism Victoria	Medium
Encourage the retention of caravan parks and camping facilities in each of the settlements, to provide low cost accommodation options.	MSS, zone	Council		High
Encourage non-urban form tourism accommodation development between the coastal settlement boundary and Wild Dog Creek, subject to criteria in the Apollo Bay Structure Plan.	MSS, zone	Council	Tourism operators, Chamber of Commerce	Low
Allow a limited range of quality tourism accommodation facilities and eco-tourism activities in other locations outside the coastal settlement boundary, where landscape and other objectives and the criteria contained in section B: Proposals outside settlement boundaries can be met.	MSS, zone, SLO	Council	Tourism operators, Chamber of Commerce	Low
Realise the tourism potential of the harbour in its future redevelopment, and ensure that it contributes to and complements the tourist function of the town centre, foreshore and beach of Apollo Bay rather than diverting tourism activity.	Harbour Redevelopment Plan	Harbour Working Group	Harbour Working Group	High
Continue to realise the eco tourism advantage of Apollo Bay, with its dramatic natural setting and strategic location at the edge of the Otways, building on the "Naturally Progressive" theme of the Colac Otway Shire and the "Health and Wellness" theme of the Apollo Bay Chamber of Commerce.	MSS, publications, Council advocacy	Council	Tourism operators, Chamber of Commerce	Medium
Explore and promote opportunities (including economic opportunities) for eco-tourism activities within the Barham River floodplain in conjunction with its rehabilitation, such as bird-watching, nature walks, or an information centre.	MSS, Council operations	Council	Tourism operators	Low
Explore the potential of promoting and improving access to the waterfall at Wild Dog Creek as a tourist attractor.	MSS, Council operations	Council		Low
Explore opportunities and likely interest in developing a local museum and information centre to educate visitors about the natural and human heritage of the area (for example)	Council operations	Council		Low
Provide for future industrial development while minimising offsite impacts on surrounding residential uses, the environment (particularly local waterways) and views from residential areas and the Great Ocean Road.				
Channel new industrial land uses into the existing industrial zone, and consider extensions to the industrial zone only when the existing industrial area is close to capacity, and with consideration given to the impact of further industrial uses on the surrounding area.	Zone, MSS	Council		Medium

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Require new industrial development to incorporate appropriate landscaping, in order to screen the development from surrounding areas and the Great Ocean Road.	Permit approval process	Council		Medium-high
Require new industrial development to incorporate Water Sensitive Urban Design initiatives, in order to reduce the need for potable water use for landscaping, reduce runoff from the site, and to filter runoff and reduce sediment loads on waterways.	Permit approval process	Council		High
Encourage the development of business or economic activities (in the town centre of Apollo Bay) that support or complement the local industrial sector.	MSS/Policy	Council	Chamber of Commerce	Low-medium
Investigate the feasibility and desirability of relocating/encouraging the relocation of the transfer station and concrete batching plant from Marengo to the industrial area of Apollo Bay. In the event that these uses relocate to Apollo Bay, the land should be redeveloped for public open space.	Council operations, MSS, Zone	Council		Medium
Ensure that new development in the southern portion of the industrial estate addresses any potential flooding issues.	LSIO, MSS	Council		Medium
Strengthen the pedestrian and cyclist connections between Marengo, Apollo Bay and Skenes Creek.				
Investigate the feasibility of a shared pedestrian / cyclist path on the ocean side of the Great Ocean Road to the north of Wild Dog Road, completing the link from Apollo Bay to Skenes Creek.	Council operations	Council	WCB and FMC	Medium-high
Negotiate with landowners on the inland side of the Great Ocean Road, as opportunities arise, to establish a shared pedestrian / cyclist path between Wild Dog Road and Skenes Creek. Any shared pathway design on the land side would need to resolve issues relating to slope, visibility and conflict between path users and vehicles at driveway entrances.	Investigation and negotiation with land owners, capital works	Council	Land Owners	Medium-high
Investigate options for a shared pathway connection on the land side of the Great Ocean Road between the commercial and retail area of Apollo Bay and the northern end of the township, to provide improved pedestrian and cyclist access to the town centre.	Council operations	Council	VicRoads	High
Construct a shared pedestrian / cyclist path on the east side of the Great Ocean Road between Nelson and Noel Streets.	Capital works	Council	VicRoads	Medium-high
Upgrade the existing footpath on the east side of the Great Ocean Road between Noel and Gambier Streets to a shared pedestrian / cyclist path.	Capital works	Council	VicRoads	Medium-high
Improve pedestrian access through the Visitor Centre car park in the foreshore reserve.	Capital works	Council	FMC	Medium
Consider the provision of low impact night lighting on the shared path between Marengo and Apollo Bay to provide safe 'round the clock' access.	Council operations	Council	FMC	Low-medium
Define pedestrian access through the caravan park at Marengo to provide a link to the Great Ocean	Capital works	Council	FMC, DSE, Caravan Park	Medium

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Walk.			Operator	
Investigate options for acquiring land or access to land to construct a shared pathway behind the township of Apollo Bay and linking to the pathway system to the north and south of the town	Council operations	Council	Land owners	Low
Provide a bridge for pedestrians and cyclists across Barham River	Capital works	Developer	Council	High (if land developed)
Future cycling and pedestrian paths should consider providing a link to the Old Beechy Rail Trail	Council operations	Council		Medium
Create a highly walkable town centre in Apollo Bay with safe and convenient access to the shops, community facilities and recreational activities				
Provide a continuous footpath along Pascoe Street, between Nelson Street and Thomson Street, to improve pedestrian access to businesses fronting to Pascoe and from angled car parking on Pascoe Street.	Capital works, developer contributions	Council	Developers	High
Construct footpaths along both sides of Hardy Street and Pengilly Avenue to provide a continuous link between the shops, the primary school, leisure centre, outdoor pool and the hospital. (A footpath already exists in Whelan Street.)	Capital works	Council		High
Construct footpaths along both sides of McLachlan Street between Thomson Street and Gambier Street to improve pedestrian access to the Hospital and to provide a link to the Barham River and floodplain.	Capital works	Council		Medium
Upgrade and maintain existing laneways for safe and convenient pedestrian access and encourage future housing to look onto the laneway for passive surveillance.	Capital works, developer contributions	Council	Developers	Low-medium
Manage the orderly flow of traffic at all times of the year and enhance pedestrian safety and movement.				
Improve traffic function at the Nelson Street / Great Ocean Road intersection: – East leg – Investigate the short-term provision of a right turn lane into Nelson Street (south to east and investigate a longer term solution of a single lane roundabout at this location, to service future development at the harbour area). – West leg – Maintain and enhance the current channelisation of Nelson Street around the memorial statue to reduce vehicle speeds and improve pedestrian crossing opportunities. Should the one-way option be approved by VicRoads, adjust the channelisation of Nelson Street/Great Ocean Road around the memorial statue to direct north-bound traffic into Pascoe Street.	Further investigation and discussion with VicRoads, Council advocacy.	VicRoads	Council	Medium
Investigate the application of a variable speed limit through the retail area of Apollo Bay from 40 km/hr during peak pedestrian activity periods to 50km/hr (current speed limit) at other times.	Council operations, Council advocacy.	Council	VicRoads	Medium-high

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Improve local traffic access throughout the settlements, particularly between the north of Apollo Bay and the Town Centre to the rear of the settlement.	MSS, working with developers to ensure new subdivisions provide improved local access.	Council	Developers	Medium
Ensure the future parking needs of Apollo Bay are met and parking congestion in the Great Ocean Road is minimised				
Implement or complete implementation of the key Short Term objectives of the Parking Precinct Plan for the Apollo Bay town centre	Council operations, capital works.	Council		Medium-high
Improve general signage directing traffic to on-street car parking in Pascoe Street – in order to offer alternatives for motorists when parking along the Great Ocean Road is at, or close to, capacity.	Capital works, Council operations	Council		High
Utilise signage to direct motorists to the Council owned car park in Pascoe Street to encourage use for overflow parking during peak periods.	Capital works	Council		High
Ensure that new development in the Apollo Bay town centre meets the car parking requirements specified in the Parking Precinct Plan, where practical.	Planning permit application process	Council		On-going
Formalise existing car parks and investigate sealing the surface in front of the visitor centre and the public toilets near the eastern leg of the Great Ocean Road/Nelson Street intersection.	Capital works	Council		Low
Investigate options to obtain more public parking on private land at the rear of shops.	Council operations, negotiations with land owners.	Council	Relevant owners	Low
Replace bus parking area in Moore Street with car parking, following provision of designated long-term parking in Pascoe Street and conversion of Great Ocean Road to one-way.	Capital works	Council		Medium
Support, promote and improve public transport				
Provide seating and shelter with timetable information and an improved lay-by area for the bus stop at the northern end of Apollo Bay.	Council advocacy	Vline	Council	Medium-High
Support the continuation and extension of the Chamber of Commerce operated shuttle bus service between the three settlements during summer.	Promotion, investigation into extensions and monitoring of user needs.	Chamber of Commerce	Council	On-going
Investigate opportunities and the need for a year round community bus service between the settlements to service local residents and reduce car dependency and social isolation.	Council operations	Council	Chamber of Commerce	Medium-high

Strategies	Implement through:	Primary Responsibility	Potential partners	Priority or Importance
Advocate to the State government the provision of daily bus services between Apollo Bay and Warrnambool to complement new and increased services planned as part of the "Grampians Link".	Council advocacy	DOI, bus operators.		Medium-high
Advocate to the state government increased public transport services to Colac from Apollo Bay.	Council advocacy	DOI, bus operators		Medium-high

Abbreviations

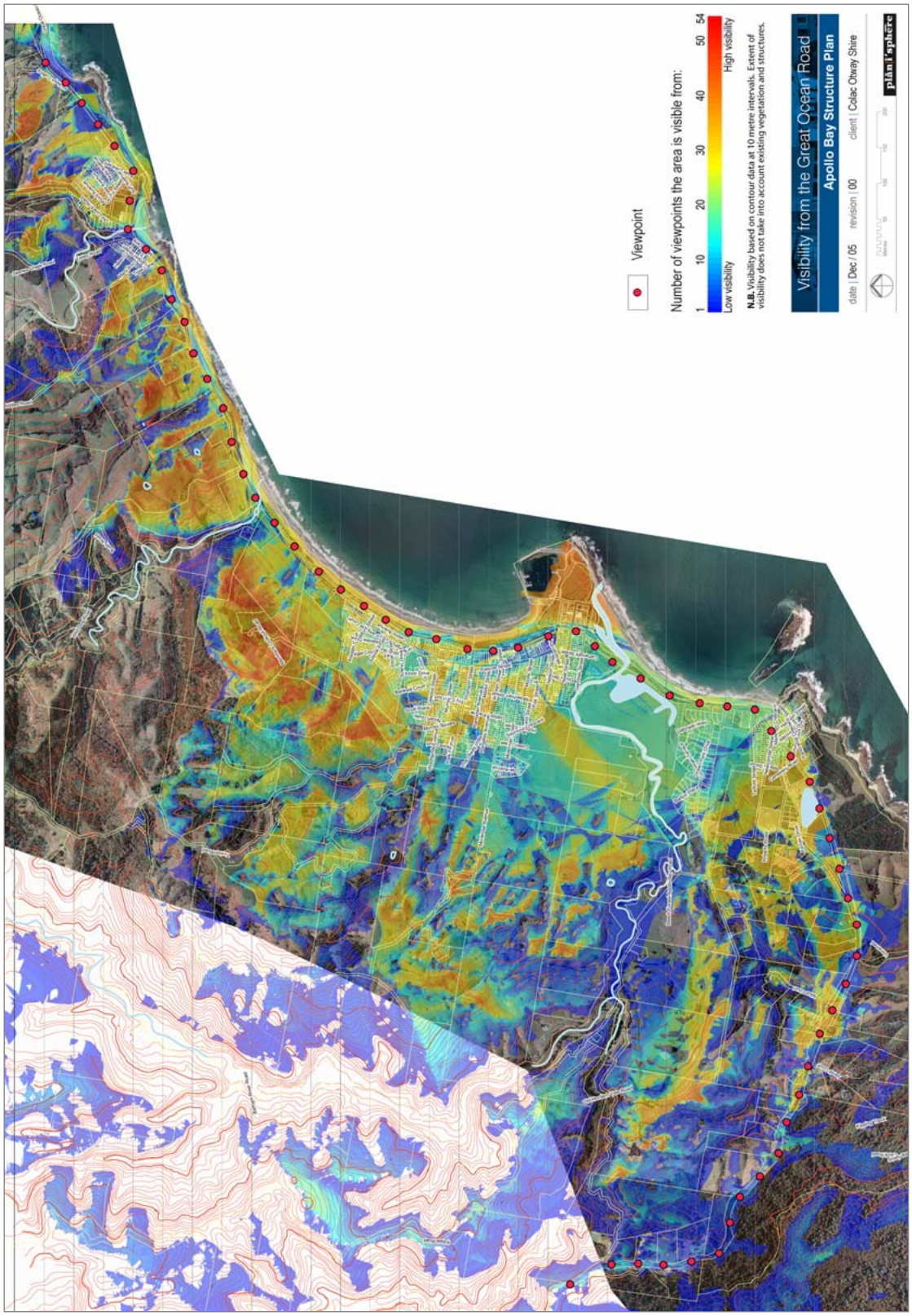
Planning Scheme:

MSS	Municipal Strategic Statement
Policy	Local Planning Policy
Zone	Land Use Zone
DDO	Design and Development Overlay
SLO	Significant Landscape Overlay
ESO	Environmental Significance Overlay
EMO	Erosion Management
DCP	Development Contributions Plan (Overlay)

Authorities/departments:

DSE	Department of Sustainability and Environment
DPI	Department of Primary Industries
DOI	Department of Infrastructure
FMC	Foreshore Management Committee
WCB	Western Coastal Board
CCMA	Corangamite Catchment Management Authority
EPA	Environment Protection Authority

Appendix A – Visibility from the Great Ocean Road Map



Appendix B – Slope Analysis Map