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PART A: STRUCTURE PLAN

1.0 Introduction

1.1 Purpose of the Structure Plan

The Moriac Structure Plan 2031 is a strategic framework for the future planning and development of the township over the next fifteen to twenty years.

The purpose of the Structure Plan is to:

- identify the key strategic planning issues facing the township, including community aspirations and needs;
- articulate the preferred future planning directions for the township to the year 2031, including the location of the settlement boundary; and
- identify appropriate planning controls which will protect and enhance the distinctive elements of the township, and the area’s biodiversity and landscape features.

1.2 How will this plan be used?

The Structure Plan is to be used by the Surf Coast Shire to determine the application of local planning policies and planning zones. It will guide Council’s consideration of proposed rezonings and applications for planning permits. Council will also use the Structure Plan to determine the future provision of infrastructure and services in the township.

Implementation of the Structure Plan for Moriac will provide certainty for residents and landowners regarding the future planning direction for the township to the year 2031. The level of land supply and redevelopment will be monitored regularly and a full review of the Structure Plan will be guided by the timing of these findings.

1.3 Plan Components

The Moriac Structure Plan 2031 contains two parts, Part A “Structure Plan” and Part B “Background Report”.

Part A, the ‘Structure Plan’ comprises of the following:

- Key issues that influence the Structure Plan.
- Principles and directions categorised under the following themes:
  - Township Growth
  - Infrastructure
  - Natural Environment
  - Economic Development
  - Leisure and Community Facilities
- An Implementation and Review Schedule including recommendations for the application of planning controls, further strategic work, and the review of the Structure Plan.

Part B, the ‘Background Report’ provides the foundation of, and contextual information for the Structure Plan including an assessment of the following themes:

- Strategic framework
- Population characteristics and forecast
- Environmental assets
1.4 The Study Area

The Structure Plan addresses the township of Moriac with consideration to its immediate surrounds, identified in Fig 1 as the locality of Moriac. This enables consideration of the role of Moriac set within its rural interface.

Fig 1: Study Area – Locality of Moriac
2.0 Key Influences

The Background Assessment (Refer Part B) identifies and discusses, in detail, key issues, opportunities and constraints, which assisted in determining the key influences that have guided development of the Structure Plan. The following is a summary of these key influences:

2.1 Policy Context

- The objective for planning for urban settlement in the State Planning Policy Framework of the Planning Scheme is to ensure a sufficient supply of land is available for residential, commercial, industrial, recreational, institutional and other public uses and to facilitate the orderly development of urban areas.
- Moriac is not designated as a growth node within Council’s Municipal Strategic Statement.
- The Local Planning Policy Framework in the Surf Coast Planning Scheme identifies Moriac as having potential for future rural residential development. This needs to be considered in the context of Ministerial Direction No. 6 for rural residential development.
- The key objective of Ministerial Direction No 6 is to manage the provision of sustainable rural residential development so that it supports sustainable housing and settlements and does not compromise Victoria’s agricultural, natural, environmental, landscape and infrastructure resources.
- The need to recognise the potential effects of climate change through:
  - embracing sustainable development principles including improved building standards, renewable energy, transport and water efficiencies.
  - exploring economic development opportunities in a carbon constrained economy.
- State and Local Planning Policy provide directions for:
  - the protection of rural environments and agricultural activities
  - the protection and conservation of biodiversity including native vegetation and animals.
  - the protection of public health by ensuring waste water is effectively managed
  - developments which meet community’s needs for retail and other commercial services
  - a range of community services and facilities which meet the needs of the community.

2.2 Natural Environment

- The need to protect and enhance the significant biodiversity features of the area, including the Thompson and Ravens creek corridor flora and fauna, native grasslands, grassy woodland and scattered mature native eucalyptus trees.
- The need to appropriately manage the environment and landscape to conserve and protect these values;
- The opportunity to improve and strengthen the character of the Moriac township through streetscape landscaping;
- The opportunity to create ‘bio-links’ between the creek corridor and key streetscape planting areas;
- The need to monitor waste water management issues within the township especially its effect on the creek corridor.

2.3 Demographics and Social Profile

- Moriac has a relatively young population and a greater proportion of families with children less than 14 years of age as compared to the average for the Shire;
- The average household size in Moriac is noticeable larger than for the whole Shire and the Geelong Region.
- Household incomes are relatively high but median income per person is around the same as for Victoria as a whole because of the larger families in Moriac.
- The township has a relatively low proportion of managers and professionals in the local labour-force, especially compared with the rest of the Surf Coast East SLA.
- Urban activities dominate the employment landscape indicating the extent of commuting to Geelong and surrounding towns. Most of the income of Moriac is brought into the township by residents working elsewhere.
2.4 Township Facilities and Services

- Moriac is well served, in relation to its size, with a range of community & leisure facilities including, recreation, education, leisure and a convenience shop that contributes to its liveability.
- There is an opportunity for the provision of an upgraded skateboard ramp, and potential pathway linkage within the township.

2.5 Physical and Transport Infrastructure

- A key infrastructure constraint is the lack of reticulated sewerage in the township. This will influence the future township form in respect to lot sizes to cater for any future development within the township.
- Storm water drainage is provided to most standard house lots. Urban stormwater runoff from lots not connected to a water drainage system could pose a threat to the sensitive environment and water catchment area. Further studies need to be undertaken to identify stormwater system capacity and suggest mitigation measures.
- The storm water catchment area for the existing township is south of the railway line and drains towards the creek.
- There is a need for improvement of the intersection at Cape Otway Road and Hendy Main Road as well as improvement of car parking in the township especially at the retail area and school.
- There is an opportunity for streetscape improvements, for example, the provision of street trees and the beautification of the entrances to the town.
- There is a need to investigate the provision of shuttle bus runs between Anglesea, Torquay, Moriac, and Waurn Ponds.
- Large haulage trucks currently utilising Hendy Main Road to and from the Gherang gravel pits are an amenity concern for residents and will need to be managed.
- There is the need to incrementally implement the outstanding works arising from Council’s pathway strategy.

2.6 Township Growth and Residential Lot Supply

- Take-up of land in the township has declined markedly since 2006. The recent drop in dwelling construction would largely be attributed to the drying up of land supply.
- Moriac has a minimum of 2.3 years supply of lots within the township. Clearly, without further rezoning, Moriac’s growth is approaching a period of stagnation. Opportunities exist to consolidate some short term residential growth within the existing township. In the medium to long term there is the opportunity of providing additional land to cater for the population growth.
- Key factors affecting township growth and future lot supply include:
  - The need to preserve longer term growth options for the township in the event of availability of sewerage and other infrastructure.
  - The availability of serviced land in the growth nodes in Armstrong Creek, Torquay and Winchelsea.
  - The availability of sewerage which will influence the density of future residential land.
  - Increased accessibility to Moriac including the construction of the Geelong bypass and duplication of the Princess Highway.
  - Council growth policies for the shire which currently focus growth in Torquay and Winchelsea.
  - Transport costs including future cost of petrol and minimal public transport service.
3.0 The Plan

3.1 Vision

The Surf Coast Community Plan\(^1\) envisages a top priority for planning and development in Moriac as follows:

“Integrated planning is needed to ensure sustainable development that is appropriate for local needs. We need more rural lifestyle properties and commercial development. Planning needs to be creative and to consider environmental impacts”

3.2 Role of the Township

The traditional role of the township is largely a dormitory settlement with a majority of residents who commute to Geelong and beyond for employment opportunities, but who choose to live in Moriac for its rural atmosphere and rural residential lifestyle. It is noted that the surrounding rural hinterland makes a significant contribution to the Shire’s agricultural base and rural landscape.

3.3 Principles and Directions

The Structure Plan identifies principles (objectives) and directions (strategies) relating to these key planning themes:

- Township Growth
- Infrastructure
- Environment
- Economic
- Leisure and Community Facilities

3.3.1 Township Growth

The existing residential lot supply in the township indicates that Moriac has only 2.3 years supply of lots within the township. Clearly, without further rezoning, Moriac’s growth is approaching a period of stagnation.

Given the identified key influences, including the environmental settings and State and Local Government directions to maintain a compact urban form, it is envisaged that a limited township growth is the preferred option in the short to medium term.

A limited growth option in the short to medium term preserves the opportunity for longer term growth drivers, such as the impact of the duplication of the Princess Highway and the provision of other infrastructure. The long term role and function of Moriac to potentially accommodate greater growth will be analysed as part of the G21 Regional Land Use Plan in context to the overall region and with consideration of potential infrastructure upgrades such as sewer.

**Principles**

- To protect the rural character of Moriac as a small settlement located within a rural setting.
- To maintain a compact township form and avoid linear sprawl of the township.
- To direct future residential expansion away from sensitive environmental areas.
- To ensure all new township growth areas are undertaken in a sustainable and staged manner.
- To provide for suitable lot sizes that reflects the standards for the containment and treatment of waste water.
- To maintain flexibility for future sustainable growth to occur. Sustainable growth is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”\(^2\).

\(^1\) Your Visions – Surf Coast Community Plan
Directions

- Encourage appropriate infill residential development.
- Contain urban development within the defined settlement boundary as defined in the accompanying Moriac Structure Plan Map. (Fig 2).
- Provide for limited growth option in the short to medium term to preserve the opportunity for longer term growth drivers, such as the impact of the duplication of the Princess Highway and the provision of other infrastructure.
- Support the provision of low density residential development in a staged manner north-west of Cape Otway Road (Stage 1) and to the north-east of Hendy Main Road (Stage 2) as shown on the accompanying Moriac Structure Plan Map. (Fig 2).
- Include the Moriac Primary School as low density residential at the time of rezoning the adjacent land earmarked as ‘Potential Stage 2 Low Density Residential Zone’
- Prepare subdivision and development criteria to apply to future subdivision in the new residential areas (as part of any rezoning application), including sustainable best practice principles for development. These principles include road and pedestrian network; density; streetscape; open space; water sensitive urban design; vegetation guidelines, water and energy saving guidelines.
- Monitor the supply and demand for residential land and other growth drivers as part of a future investigation of longer term township growth and appropriate development density.
- Ensure land use development does not encroach onto, or have adverse effects on the identified environmental assets. (Refer Part B – Background report)
- Ensure that, in the absence of reticulated sewerage, lots sizes are of a size and shape necessary to ensure appropriate effluent treatment and containment on site.

3.3.2 Infrastructure

There are opportunities to investigate the provision of adequate infrastructure services in Moriac to include sustainable best practices.

Council may consider the preparation of a DCP for Moriac to assist in the meeting of costs of providing infrastructure necessary to support future growth and development in the township. However, further investigation is required to justify any infrastructure needs and the financial contributions required to provide the infrastructure.

Principles

- To provide for a safe and improved motorised and non-motorised network, including pedestrian, cyclist and public transport linkages, throughout the township.
- To provide appropriate infrastructure in future development areas.
- To ensure new development addresses sustainable best practices including road/pathway connectivity, stormwater outfall management and water sensitive urban design principles.
- To provide a sense of identity and place for Moriac through the beautification of streets and the entrances to the township

Directions

- Undertake a study to provide recommendations for improvement to the road network including the Cape Otway Road and Hendy Main Road intersection.
- Undertake a study to manage the impact of large haulage trucks currently utilising Hendy Main Road to and from the Gherang gravel pits.
- Assess the requirements for physical infrastructure in the future development areas including the provision of a defined stormwater drainage outfall.
- Investigate expansion/upgrade of the existing storm water drainage system and suggest appropriate improvements.
- Monitor waste water management issues in Moriac and consider the provision of a ‘packaged’ sewerage disposal system in the future development areas.
- Investigate the viability of a shuttle bus run between Anglesea, Torquay, Moriac, and Waurn Ponds.
- Incrementally facilitate and implement the outstanding works arising from Council’s pathway strategy.

• Review the adequacy of and provide recommendations for improvement of car parking at the commercial area and Moriac primary school.
• Investigate the preparation of guidelines to address streetscape issues eg street planting and upgrading the gateways to the township.
• Investigate the re-opening of the railway station in the longer term.

3.3.3 Natural Environment

The study area includes scattered occurrences of environmental assets comprising native grasslands within road and rail reserves, ‘Plains Grassy Woodland’ within road side reserves, scattered mature, native Eucalypt trees in the north west of the study area, Swampy Riparian Woodland in one small patch on Thompsons Creek and aquatic and semi-aquatic native vegetation within major drainage lines.  

Nine patches of native vegetation and three areas of wetland and associated dry land habitats (including Ravens Creek and the upper reach of the Thompsons Creek) are recommended for planning scheme protection. An area of scattered, mature native trees to the northwest of the Moriac Township is also recommended for planning scheme protection.

Principles

• To protect the biodiversity character of the township and the ecological sensitivity of the surrounding environment.
• To ensure environmentally sensitive areas, appropriate buffers and identified creek corridors are protected and enhanced.
• To ensure the existing and future landscape and neighbourhood character is adequately protected and enhanced.

Directions

• Actively support public land managers in the on-going management and protection of the sensitive environmental areas.
• Encourage retention and enhancement of existing vegetation on private land, roadsides and reserves using indigenous species through the preparation of vegetation guidelines.
• Ensure that development adjacent to areas of environmental assets (Refer Part B – Environmental Assets) is undertaken in a manner which complements and does not impact adversely upon these features.
• Introduce planning scheme controls over identified biodiversity sites and corridors in the Moriac Environmental Assets Assessment 2009 to protect and enhance these areas.
• Provide landscaping at the key gateways to the township and streetscapes, e.g. at Cape Otway Road and Hendy Main Road.

3.3.4 Economic Development

The existing Moriac Town Centre should remain the focus for commercial development within the township, to foster vitality and avoid fragmentation of uses and activities. Formalising this location as the town centre could be enhanced by encouraging the use of all the allotments fronting Cape Otway Road between The Broadway and Hendy Main Road for business purposes.

Expansion of this town centre area would be possible on adjacent allotments to the south should demand warrant.

Other commercial activities (light industrial) which are most prospective for Moriac include construction-related activity, plant nurseries, automotive servicing and rural supplies. Most of these types of activity require exposure to passing trade and easy access for deliveries and customers. For this reason a main road location would be desirable subject to appropriate urban design controls.

Principles

---

To consolidate commercial activity and development within the existing Moriac Town Centre to create a thriving town centre.
To encourage opportunities for local employment by providing land for other commercial activities (light industrial).

Directions
- Encourage infill development and redevelopment of existing sites within the designated Town Centre fronting Cape Otway Road between The Broadway and Hendy Main Road, with the possibility of future expansion to the south (albeit with some redevelopment of houses if required).
- Facilitate other commercial / light industrial activities at the vicinity along Cape Otway Road north of Lloyd Mews.
- Prepare design guidelines for the town centre and light industrial/commercial precinct, given that this is located on the main road through Moriac. The guidelines should include setback, landscaping, signage controls, requirements for service roads, etc in order to provide a positive image of the township.

3.3.5 Leisure and Community facilities

Moriac supports a range of community & leisure facilities, and other social services that contribute to its liveability. These facilities provide for social interaction between residents, and foster leisure and recreation activities. (Refer to Part C - Background Report – section 2.7 for assessment).

Principles
- To encourage the provision of a range of leisure and community facilities commensurate with the size and role of the township.
- To encourage adequate levels of public open space, both within the existing and future residential areas, to cater for the passive and active recreation needs of the community.

Directions
- Support the actions in the Newling Reserve Masterplan and Mt Moriac Reserve Masterplan for ongoing upgrading of open space, leisure and recreation areas.
- Support the provision of open space corridors in the future residential areas.
- Support the actions in Council’s pathway strategy including provision of potential pedestrian/bicycle linkages.
- Support the proposed refurbishment of the primary school and investigate the longer term expansion of the school.
- Support the opportunity for the provision of youth services as envisaged in the Youth Strategy, including an upgraded skateboard park, within the township.
- Support the provision of a future ‘community garden’ should the community demonstrate a willingness to participate in such a program.
- Support the actions in the ‘Surf Coast Early Years Plan – 2009-2013’ to establish a satellite hub at Moriac Primary School and to investigate local family day care and kindergarten options.

---

4 Surf Coast Shire Youth Strategy, 2006
Fig 2: Moriac Structure Plan Map
4.0 Implementation and Review

This Structure Plan provides a framework for land use planning and development in Moriac over the next fifteen to twenty years with identified policies and strategies to provide a basis for future decision making.

Table 1 identifies key Planning Scheme alterations, or supporting strategic work, necessary to attain the identified principles and directions of the Structure Plan, including:

- Introduction of Planning Policy;
- Application of Zones and Overlays;
- Further strategic work required to support additional planning controls;
- Other actions critical to attaining key principles and directions.

<table>
<thead>
<tr>
<th>Item</th>
<th>Tools</th>
<th>Timeframe*</th>
<th>Responsibility</th>
</tr>
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<tbody>
<tr>
<td>Using policy and the exercise of discretion</td>
<td>Redraft the MSS (Moriac Strategy) reflecting the directions and principles of the Moriac Structure Plan, February 2010 and include the Structure Plan as a reference document.</td>
<td>Short term</td>
<td>SCS</td>
</tr>
<tr>
<td>Applying Zones and Overlays</td>
<td>Apply a Low Density Residential Zone (LDRZ) to the future residential precincts north–west of Cape Otway Road and north-east of Hendy Main Road (refer Fig 3). Apply a Development Plan Overlay to the future LDRZ precinct based on the principles and directions identified in the Structure Plan.</td>
<td>Short/Medium term</td>
<td>Land owners/SCS</td>
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<tr>
<td></td>
<td>Apply an Industrial 3 Zone to land north of Cape Otway Road and Lloyd Mews as identified in the Structure Plan (Refer Fig 3). Apply a Design and Development Overlay to this precinct comprising the design guidelines stipulated for this area.</td>
<td>Short/Medium term</td>
<td>Landowners/SCS</td>
</tr>
<tr>
<td></td>
<td>Apply a Public Conservation Recreational Zone to land along the upper reaches of the Thompsons Creek as identified in the Structure Plan (Refer Fig 3) to reflect the transfer of land to Council as a creek reserve.</td>
<td>Short/Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>Apply a Public Purposes Recreational Zone to remaining land identified as existing public open space in the Structure Plan but not yet rezoned for the purpose. (Refer Fig 3)</td>
<td>Short/Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>Investigate the application of an Environmental Significance Overlay or a Vegetation Protection Overlay to areas of significance identified in the Moriac Environmental Assets Assessment Report.</td>
<td>Short/Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td>Item</td>
<td>Tools</td>
<td>Timeframe*</td>
<td>Responsibility</td>
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<tr>
<td>Undertaking further strategic work</td>
<td>Investigate the funding mechanism for provision of necessary infrastructure.</td>
<td>Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>Monitor the supply/demand of residential land annually and review the Moriac Structure Plan as necessary.</td>
<td>On-going</td>
<td>SCS</td>
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<tr>
<td></td>
<td>Prepare design guidelines to guide the future development of the Moriac Town Centre and the proposed light commercial precinct.</td>
<td>Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>Prepare development plan criteria for the potential low density residential areas as part of any rezoning application to include sustainable best practice and appropriate staging plan for development.</td>
<td>Short/Medium term</td>
<td>Landowners/SCS</td>
</tr>
<tr>
<td></td>
<td>Investigate the opportunity for longer term future growth of the township</td>
<td>Long term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>Investigate the key 'infrastructure investigation items' as listed in the Structure Plan including the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Undertake a study to provide recommendations for improvement to the road network including the Cape Otway Road and Hendy Main Road intersection.</td>
<td>Short/Medium term</td>
<td>SCS/VicRoads</td>
</tr>
<tr>
<td></td>
<td>2. Undertake a study to manage the impact of large haulage trucks currently utilising Hendy Main Road to and from the Gherang gravel pits.</td>
<td>Medium term</td>
<td>SCS/VicRoads</td>
</tr>
<tr>
<td></td>
<td>3. Assess the requirements for physical infrastructure in the future development areas including the provision of a defined stormwater drainage outfall.</td>
<td>Medium term</td>
<td>Developers/SCS/Barwon Water/Powercor</td>
</tr>
<tr>
<td></td>
<td>4. Investigate expansion/upgrade of the existing storm water drainage system and suggest appropriate improvements.</td>
<td>Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>5. Monitor waste water management issues in Moriac and consider the provision of a ‘packaged’ sewerage disposal system in the future development areas.</td>
<td>On-going</td>
<td>Developers/SCS</td>
</tr>
<tr>
<td></td>
<td>6. Investigate the viability of shuttle bus run between Anglesea, Torquay, Moriac, and Waurn Ponds.</td>
<td>Short</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>7 Incrementally implement the outstanding works arising from Council’s pathway strategy.</td>
<td>On-going</td>
<td>SCS/Developers</td>
</tr>
<tr>
<td></td>
<td>8. Review the adequacy of and provide recommendations for improvement of car parking in the township especially at the commercial area and primary school.</td>
<td>Medium term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>9. Investigate the preparation of guidelines to address streetscape issues eg street planting and upgrading the gateways to the township.</td>
<td>Medium term</td>
<td>SCS/VicRoads</td>
</tr>
<tr>
<td></td>
<td>10. Investigate expansion/upgrade of the storm water drainage system.</td>
<td>Long term</td>
<td>SCS</td>
</tr>
<tr>
<td></td>
<td>11. Investigate the opportunity to re-open the railway station.</td>
<td>Long term</td>
<td>SCS/V/Line</td>
</tr>
<tr>
<td></td>
<td>Investigate expansion of the primary school</td>
<td>Long term</td>
<td>Education Dept.</td>
</tr>
</tbody>
</table>

* Short term – 1- 3 years; Medium term – 3 - 10 years; Long term 10 years +
Fig 3: Proposed rezonings

Appling new Zones and Overlay

Two options were considered for applying new zones in the structure plan:
- use of specialised zones eg. Density Residential Zone (LDRZ), Industrial 3 Zone (IN3Z). An advantage of using the specialised zones ensures more certainty in achieving the desired use of land.
- use of general zone – Township Zone. The purpose of the Township Zone in the planning scheme is to provide for residential development and a range of commercial, industrial and other uses in small towns.

A comparative research on similarly sized towns eg, Birregurra, Meredith and Inverleigh indicates a more recent trend towards the use of specialised zones to provide certainty for land use.

Land use specific zones are recommended for future land uses earmarked in Moriac since this will ensure more certainty for specific types of development.

A Development Plan Overlay is recommended to be applied to land proposed as Low Density Residential Zone (LDRZ) to:
- coordinate proposed use or development.
- guide the content of the plan by specifying that it should contain particular requirements.
- provide certainty about the nature of the proposed use or development.

A schedule to the Development Plan Overlay should include best practice sustainable subdivision principles including the following requirements:
• Internal road and pathway network - Connect future roads into the existing town road system by continuing the adjoining street pattern, where appropriate; Avoid cul-de-sacs and other street layouts with isolated forms of development that discourage permeability.

• Public open space – encourage proposed open space linkages to existing public open space; require lots to front on to parks and other areas of open space.

• Lot density - ‘Land Capability Assessment’ should be undertaken to the satisfaction of Council to determine the minimum lot size for effective on-site disposal of waste water.

• Water sensitive urban design principles - appropriate storm water management, principles and design as specified in “Urban Stormwater - Best Practice Environmental Management Guidelines” prepared by the Victorian Stormwater Committee.

• Ecological Sustainable Development - orientation of lots for solar access.

• An appropriate staging plan for development.
PART B BACKGROUND REPORT

1.0 Introduction

1.1 Background

The development and planning of Moriac has been guided by previous structure plans, adopted in 1979 and 1992 administered by the previous Barrabool Shire Council and Geelong Regional Council, and more recently State and Local Planning Policies in the Surf Coast Planning Scheme.

A need to review the previous structure plan has arisen as a result of a number of factors including:
- the results of a recent local community consultations undertaken for the township;
- enquires from private land owners for the subdivision of land;
- the need to manage change and development within the township.

In addition, Council’s Community Plan “Your Visions”, 2004, identified the following top priority, in relation to Planning and Development, for Moriac:

*Integrated planning is needed to ensure sustainable development that is appropriate for local needs. We need more rural lifestyle properties and commercial development. Planning needs to be creative and to consider environmental impacts*

The purpose of the Structure Plan is to identify the key strategic planning issues and opportunities facing the township and articulate the preferred future directions including the location of settlement boundaries; future residential and commercial growth and community service provision, as well as identifying appropriate planning controls.

1.2 Location

The township of Moriac is located approximately 20 kilometres west of Geelong at the centre of a large farming district which extends into coastal heathlands. It has an estimated population of 571 persons. (Refer Fig 4)

Fig 4 : Location of Moriac in a sub-regional context

---

5 ABS 2006 Census data
The study area comprises the urban township of Moriac, the Locality of Moriac and the surrounding rural hinterland (refer Fig 5).

**Fig 5 : Locality of Moriac**

The urban township is bounded by Cape Otway Road, Hendy Main Road and the Upper reaches of the Thompson Creek.

In considering the study area, the impact of the outlying localities within the Moriac – Rural East District including Barrabool, Buckley, Freshwater Creek, Gnarwarre, Modewarre, Mount Moriac and Paraparap should be taken into consideration.

**1.3 Township History**

The rural village of Moriac, south of Mount Moriac along the Hendy Main Road, is unusual as a privately laid-out township.

It was the creation of E.E. Hendy, a Geelong estate agent and later a Shire of Barrabool Councillor. Hendy laid out the township beside Moriac Railway Station in 1924. He developed the subdivision at his own expense, including the construction of roads such as Hendy ‘Highway’ (This was once known as Mill Road and led to Lecch’s Mill at Mount Moriac, which was ruined in 1992). Hendy also provided finance for a saleyard.

According to historian Wynd, ‘farmers who bought land in the 1924 Moriac sale had ‘through their own efforts built two schools and a telephone building and had expended £2,500 on making their own roads until the Country Roads Board came to the rescue’.

Physical evidence of the early 20th century development of Moriac is revealed in the Moriac General Store and Post Office, built in 1925 to a design by Lieut. Col. F.C. Purnell.

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6 Farmland, Forest & Surf Environmental History, Surf Coast Shire Heritage Study Stage 2b Volume Two August 2008
1.4 Context of Structure Plan

The Moriac Structure Plan is primarily a land use planning document within the context of a range of other Council plans, State Government legislation and regional policies. Fig 6 illustrates in broad terms the hierarchy of the most relevant plans, legislation and policies.

**Fig 6 : Structure Plan context**

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**Local context**

In a local context the Community Plan, Council Plan and other Council strategies are the overarching documents that provide the context for development of the Moriac Structure Plan. Key Council strategies are included in Section 2.2 – Background Assessments.

**Community Plan**

The Surf Coast Shire Community Plan, ‘Your visions’ was developed to provide Surf Coast Shire and the community with a shared vision to the future. The Community Plan provides a comprehensive strategy to promote the social, economic, and environmental well-being of the area, developed with extensive community engagement. The Community Plan includes an outline of what each community has priority to be issues of most importance to them.

**Council Plan 2009 – 2013**

The Council Plan 2009 – 2013, under sustainable development and growth promotes:

- ‘Ecologically sustainable development.
- Development that adds to our quality of life and promotes a sense of place.
- Diversity of housing to meet community needs.
- Efficient, effective and responsive Council land use planning processes.
- Strong and diverse business, industry and tourism economies’

---

Sustainable Futures 2040 Project

This project is currently being undertaken with the following proposed aims:

- To clarify the context of growth management within the Surf Coast Shire settlements.
- To provide community engagement as a foundation for the discussions about growth management within the Shire.
- To identify regional growth management issues and potential impacts on Torquay/Jan Juc - understand positives and negatives of growth.
- To understand the sense of place that underpins Torquay/Jan Juc in relation to its community and location on the coast.
- To develop and analyse options for managing growth in Torquay/Jan Juc i.e.: level, location and form including reference to other growth options such as Winchelsea.
- Confirm growth management options for Torquay/Jan Juc and Winchelsea in context to the broader Shire in light of the above i.e. policy statements and maps confirming level, location and form of development.

Surf Coast Housing Policy Project, 2006

This project identifies Surf Coast Shire’s housing needs, and prepares a Housing Strategy to accommodate those needs while supporting the economic growth of the Shire.

The project acknowledges that there is a moderate and consistent amount of residential development expected to continue to occur in the Moriac – Rural East area - based on the development of remnant zoned land and moderate levels of in-fill.

Actions recommended in relation to Moriac include:

- Maintain the green break between Moriac and Waurn Ponds.
- Review opportunities through the Rural Strategy Review for rural residential development currently identified in the Municipal Strategic statement.
- Maintain the Farming Zone (including minimum subdivision areas) on valuable agricultural land surrounding the hinterland townships including Moriac.
- Undertake a character study of Moriac, either separately or as a part of a broader strategic planning project for the township.

Surf Coast Planning Scheme context

The Surf Coast Shire is covered by a planning scheme, which sets out policies and provisions for the use, development and protection of land. They are legal documents, prepared by the local council or the Minister for Planning and approved by the Minister.

The Surf Coast Planning Scheme comprises the State Planning Policy Framework (SPPF), Local Planning Policy Framework (LPPF) and Municipal Strategic Statement (MSS), Zones, overlays and other provisions.

The existing Moriac framework plan\(^8\) contained within the MSS envisages that the township will remain a small country hamlet with a majority of residents who commute to Geelong and beyond for employment opportunities, but who choose to live in Moriac for its rural atmosphere and rural residential lifestyle. It notes that the surrounding rural hinterland makes a significant contribution to the Shire’s agricultural base.

The Moriac Framework Plan is further influenced by key Shire wide strategic objectives including:

- To manage population growth in an environmentally sustainable manner and make effective use of physical and social infrastructure by identifying Torquay/Jan Juc and Winchelsea as growth nodes.
- To manage the diverse environmental values of the Shire in a sustainable manner by balancing the needs of present and future generations with the protection of biodiversity and natural processes.
- To preserve and enhance scenic landscapes and cultural heritage values through the responsible management of land use and development.

\(^8\) Surf Coast Planning Scheme, 21.04-3 Housing and settlement
To support and encourage growth in the agricultural economy through sustainable and productive agricultural activities and rural industries.
To minimise the fragmentation and loss of good to high quality agricultural land and minimise speculative increases in rural land values.
To consolidate rural residential and rural living development within existing areas zoned for such purposes.
To evaluate opportunities for new rural residential and rural living subdivision only within those areas specifically identified in the Municipal Strategic Statement as special investigation areas.
To maintain the viability and amenity of the rural hamlets while ensuring that new development does not adversely impact on the environment, particularly with respect to vegetation removal, catchment management, and waste water disposal.

State and Regional policy context

At another level, State Government legislation and regional policy provide an overarching policy context. The documents of particular relevance include the Planning and Environmental Act 1987, Growing Victoria Together (2005) and the Planning for all of Melbourne, the Victorian Government response to Melbourne 2030 Audit.

Planning and Environmental Act, 1987

All municipalities in Victoria are covered by land use planning controls which are prepared and administered by State and local government authorities. The legislation governing such controls is the Planning and Environment Act 1987.

Growing Victoria Together (2005)

Is a ten-year vision that articulates what is important to Victorians and outlines the priorities the State Government has set to build a better society. It is based on the following ten principles.

1. More quality jobs and thriving, innovative industries across Victoria
2. Growing and linking all of Victoria
3. High quality, accessible health and community services
4. High quality education and training for lifelong learning
5. Protecting the environment for future generations
6. Efficient use of natural resources
7. Building friendly, confident and safe communities
8. A fairer society that reduces disadvantage and respects diversity
9. Greater public participation and more accountable government
10. Sound financial management

Planning for all of Melbourne, the Victorian Government response to Melbourne 2030 Audit

This document recognises the need to continue to work with councils to develop and integrate planning for land use, transport, economic development and community planning for rural and regional Victoria in order to better manage growth.

Planning Strategic Planning Initiative (Update 2009)

The Regional Planning Strategic Planning Initiative will develop a blueprint is not only about planning for population growth but also help provincial Victoria continue to thrive in the face of changing demographic, social, environmental and economic conditions.

The G21 Strategic Land Use Regional Plan

The G21 Geelong Region Plan is a sustainability plan for the region that looks toward 2050. It identifies and addresses the challenges the region will face in the areas of environment, settlement, land use, community strength and economy.
Direction 2 – seeks to transform our cities and towns, by setting aside land to provide for current and future choices for residential, commercial, rural and agricultural needs, while minimising impact on the natural environment.

Policy 2.2 – seeks to create a network of well designed, safe and healthy communities by providing for the development of interconnected pattern of attractive, high amenity centres and settlements.

**Victorian Government Green Paper on Climate Change**

The Victorian Government has released a Climate Change Green Paper - the next step in our comprehensive response to climate change.

The Green Paper outlines in detail the risks facing our state and the likely impacts of the Carbon Pollution Reduction Scheme, and also proposes ways Victoria can reduce greenhouse gas emissions, adapt to the impacts of climate change and become a leading low carbon economy.
1.5 Methodology

Fig. 7 illustrates the process used to develop the Moriac Structure Plan. The project involved community consultation at various stages during the preparation of the plan.

Fig 7: Methodology
1.6 Stakeholder Consultation & Community Input

At the conception of the project during September 2008, correspondence was sent to all owners and occupiers in the Moriac area about the preparation of the structure plan and the formation of a community reference group.

A Community Reference Group was formed in October 2008 as part of the Moriac Structure Plan preparation process. The primary responsibility of the Community Reference Group was to provide local input and feedback on the structure plan as it was developed. The input of the Community Reference Group was very valuable and the time and contribution given by all members is acknowledged. Members of the Community Reference Group comprised the following:

- Michael Aberton
- Steve Durkin
- Colin Findley
- Anna Hayward
- Andrew MacDonald
- Carolyn McKenzie
- Michael Meesen
- Glen Newling
- Geoffrey Pfitzner

In December 2008, a community visioning forum was held to ascertain what the Moriac community values about the town and preliminary land use opportunities.

This forum provided valuable information about the vision for Moriac.

As part of the process of defining the Structure Plan, two interactive workshops sessions were held during June 2009. The workshop sessions provided information and received feedback on possible development options for Moriac and their implications.

Other stakeholders consulted during the process of preparing the structure plan included the servicing authorities - Barwon Water, Powercor and Telstra.
2.0 Background Assessments

As part of defining the Structure Plan, background assessments were prepared comprising of the following:

- Strategic framework
- Population Characteristics and Forecast
- Environmental Assets
- Economic Assessment
- Infrastructure Assessment
- Lot supply & land options
- Leisure & Community Facilities Assessment

2.1. Strategic framework

2.1.1 Role in Shire’s Existing Framework

The existing Moriac framework plan\(^9\) contained within the MSS envisages that the township will remain a small country hamlet with a majority of residents who commute to Geelong and beyond for employment opportunities, but who choose to live in Moriac for its rural atmosphere and rural residential lifestyle. It notes that the surrounding rural hinterland makes a significant contribution to the Shire’s agricultural base.

The Moriac Framework Plan is further influenced by key Shire wide strategic objectives including:

- To manage population growth in an environmentally sustainable manner and make effective use of physical and social infrastructure by identifying Torquay/Jan Juc and Winchelsea as growth nodes.
- To manage the diverse environmental values of the Shire in a sustainable manner by balancing the needs of present and future generations with the protection of biodiversity and natural processes.
- To preserve and enhance scenic landscapes and cultural heritage values through the responsible management of land use and development.
- To support and encourage growth in the agricultural economy through sustainable and productive agricultural activities and rural industries.
- To minimise the fragmentation and loss of good to high quality agricultural land and minimise speculative increases in rural land values.
- To consolidate rural residential and rural living development within existing areas zoned for such purposes.
- To evaluate opportunities for new rural residential and rural living subdivision only within those areas specifically identified in the Municipal Strategic Statement as special investigation areas.
- To maintain the viability and amenity of the rural hamlets while ensuring that new development does not adversely impact on the environment, particularly with respect to vegetation removal, catchment management, and waste water disposal.

Fig 8 illustrates the overall Shire framework plan.

\(^9\) Surf Coast Planning Scheme, 21.04-3 Housing and settlement
Fig 8: Shire Framework Plan
Moriac strategy, surf coast planning scheme

The Moriac Strategy in the Surf Coast Planning Scheme\textsuperscript{10} outlines the following strategic objectives for the township. (also refer to Fig. 9 Moriac framework plan):

Population, Housing and Residential Development
- To maintain a compact township which retains its rural atmosphere

Infrastructure
- To protect the public health of the township by ensuring waste water is effectively managed.
- To protect the environment particularly Ravens Creek and the Thompsons Creek Catchment from contamination or degradation caused by inappropriate methods of waster water disposal

Community Facilities
- To provide a range of community services and facilities which meet the needs of the local township

Commercial Facilities
- To encourage small businesses to establish in the town which will serve the needs of the local residents and surrounding hinterland.

Fig 9: Moriac framework plan

\textsuperscript{10} Clause 21.15, Surf Coast Planning Scheme.
Are there grounds for reviewing this role?

In undertaking any review of an existing structure plan it is useful to conduct an audit of the existing strategies to determine the extent to which they have been achieved and the level of relevance they may still hold. (Refer Table 2)

Table 2: Audit of Moriac Strategy in the Surf Coast Planning Scheme.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Achievement and continuing relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Population, Housing and Residential Development</td>
<td>Continue to support residential development in the area to the west of Hendy Main Road and to the south of the public open space reserve, where provision can be made for road access and potential links to the existing subdivisions further west</td>
<td>Has been achieved. The subdivision of this area has been completed and residential development is nearing completion.</td>
</tr>
<tr>
<td>To maintain a compact township which retains its rural atmosphere</td>
<td>Maintain effective buffer zones between residential development and water courses, in particular by providing for revegetation of the Thompkins Creek environs.</td>
<td>Buffer zone has been provided. This constitutes reserved land along the Thompkins creek in the plan of subdivision. Revegetation of the reserve has not occurred and hence this strategy is still relevant.</td>
</tr>
<tr>
<td></td>
<td>Ensure that future residential development or subdivision west of Hendy Main Road does not impact negatively on Thompkins Creek and environs.</td>
<td>The drought that has occurred over the past 10 years has reduced the drainage impact on creek environs. However future probable increase in rainfall will increase this impact and as a result this strategy is still relevant.</td>
</tr>
<tr>
<td></td>
<td>Direct further rural residential development to the 15 hectare area of land north west of Cape Otway Road which has been partly developed for rural residential use.</td>
<td>The rezoning of this land for rural residential purposes has not occurred. The continuing relevance of this strategy may be subject to lot supply and demand investigations for rural residential lots as well as the fragmentation of this land.</td>
</tr>
<tr>
<td></td>
<td>Establish a buffer between the proposed rural residential and service business area located between Cape Otway Road and the railway line with 70% of the buffer to be provided on the rural residential land and 30% on the service business land.</td>
<td>The need for the buffer could be reviewed based on the need for service business land. Buffer not established to date. Continuing relevance may depend on any continuing need for service business land at this location.</td>
</tr>
<tr>
<td></td>
<td>Prevent further development north of the railway line.</td>
<td>The railway line is a barrier to development.</td>
</tr>
</tbody>
</table>
### B. Infrastructure

**To protect the public health of the township by ensuring waste water is effectively managed.**

To protect the environment particularly Ravens Creek and the Thompsons Creek Catchment from contamination or degradation caused by inappropriate methods of waster water disposal.

- Ensure economical servicing of Moriac by developing in the same drainage basin as the existing township and along the likely route of any future sewer main.

  Need to review this strategy based on future reticulated sewerage provision.

- Apply a minimum lot size of 0.4 hectares in the Moriac township unless it can be demonstrated that all waste water and septic tank effluent can be suitably disposed of within the boundaries of the lot.

  Currently relevant. Need to monitor the effects of the disposal of wastewater on the creek reserves.

- Require all applications for subdivision of land to provide a detailed site assessment by a suitably qualified person that addresses all issues relating to waste water disposal and management in accordance with the State Environment Protection Policy - Waters of Victoria and the Code of Practice – Septic Tanks (EPA Publication 451).

  Already in planning scheme clause 32.02.

- Pursue the establishment of a wetlands reserve to treat stormwater and nutrient run-off adjacent to Ravens Creek, and continue to maintain the existing stream reserve to act as a buffer between houses and the watercourse.

  Need to investigate the continuing relevance.

### C. Community Facilities

**To provide a range of community services and facilities which meet the needs of the local township.**

- Develop a linked open space network throughout the town, particularly to new residential areas and the school.

  Linked open space network has been achieved via subdivision of residential area. This strategy is still relevant for future subdivision Areas.

- Allow for any necessary future expansion of the 1.35ha school site to 1.7ha, which would accommodate in the order of 100 - 199 students.

  Investigate need for further expansion of school. Currently has 209 pupils enrolled.
D. Commercial Facilities

To encourage small businesses to establish in the town which will serve the needs of the local residents and surrounding hinterland.

| | Set aside an area for the establishment of local service businesses in the vicinity of the existing centre adjacent to the former railway station. |
| | Review demand for local service centre. |
| | Investigate the possibility with V/line, of re-opening the Moriac railway station to provide a potential asset for commercial uses and a form of public transport for the significant proportion of residents who commute to work in Geelong. |
| | Currently relevant. |

2.2 Population Characteristics and Forecast

2.2.1 introduction

Population profiles and projections tell us about the changing patterns of our society and our economy and how these are reflected in the settlement. They are therefore, an important decision making tool which assist in making decisions about where new services and products may be needed. They paint a picture of the future and highlight challenges for new policies and practices.

2.2.2 population summary

A summary snapshot of the 2006 population\textsuperscript{11} in Moriac township as compared to Surf Coast Shire and Victoria is provided in Table 3.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
Population summary & 2006 \\
\hline
Moriac Urban Area & 594 \\
Surf Coast Shire & 21,771 \\
Victoria & 4,932,422 \\
\hline
\end{tabular}
\caption{Population summary}
\end{table}

Table 4 illustrates the age breakdown of population. This shows Moriac having a younger population and a greater proportion of families with children less than 14 years of age as compared to the average for the Shire.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
Age profiles & Moriac Township & Surf Shire & Coast \\
& & & \% \\
\hline
0-4 years & 52 & 1498 & 6.9 \\
5-14 years & 143 & 3091 & 14.2 \\
15-24 years & 44 & 2374 & 10.9 \\
25-54 years & 280 & 9264 & 42.6 \\
55-64 years & 36 & 2619 & 12.0 \\
65+ & 38 & 2925 & 13.4 \\
\hline
Median age of persons & 33 & - & 39 \\
\hline
\end{tabular}
\caption{Age breakdown}
\end{table}

\textsuperscript{11} ABS Population Census 2006
2.2.3 past population growth

The population of Moriac urban area increased by almost 20% between 2001 (480 persons) and 2006 (571 persons) with an average annual change of 3.5%\(^{12}\) (Refer Tables 5 & 6). This is a strong growth rate, consistent with the growth rate for Surf Coast Shire overall. Nevertheless, the actual numerical increase is relatively small, averaging only around 18 persons per year.

Table 5: population growth summary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population*</td>
<td>-</td>
<td>-</td>
<td>390</td>
<td>480</td>
<td>571</td>
</tr>
<tr>
<td>Male: Female ratio*</td>
<td>-</td>
<td>-</td>
<td>100.0</td>
<td>116.2</td>
<td>103.2</td>
</tr>
<tr>
<td>Visitors on Census night*</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Population in non-private dwellings*</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Population at same address 5 years ago</td>
<td>-</td>
<td>-</td>
<td>223</td>
<td>219</td>
<td>323</td>
</tr>
</tbody>
</table>

*Includes local, interstate and overseas visitors.

Persons aged between 5-17 and 35-44 have consistently formed the largest age group from 1996 to 2006, suggesting a higher proportion of families in Moriac. (Refer Table 7). This is confirmed in Table 8 which shows couple, family and children as the dominant family composition.

Table 7: age profiles

<table>
<thead>
<tr>
<th>Age structure</th>
<th>1996</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number/Number</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>0-4</td>
<td>56</td>
<td>14%</td>
<td>58</td>
</tr>
<tr>
<td>5-17</td>
<td>105</td>
<td>27%</td>
<td>126</td>
</tr>
<tr>
<td>18-24</td>
<td>22</td>
<td>6%</td>
<td>26</td>
</tr>
<tr>
<td>25-34</td>
<td>61</td>
<td>16%</td>
<td>68</td>
</tr>
<tr>
<td>35-44</td>
<td>82</td>
<td>21%</td>
<td>104</td>
</tr>
<tr>
<td>45-54</td>
<td>42</td>
<td>11%</td>
<td>44</td>
</tr>
<tr>
<td>55-64</td>
<td>7</td>
<td>2%</td>
<td>23</td>
</tr>
<tr>
<td>65-74</td>
<td>13</td>
<td>3%</td>
<td>26</td>
</tr>
<tr>
<td>75+</td>
<td>3</td>
<td>1%</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>390</td>
<td>100%</td>
<td>480</td>
</tr>
</tbody>
</table>

Table 8: family composition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>2001</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>Couple family* with children</td>
<td>70</td>
<td>87</td>
<td>104</td>
</tr>
<tr>
<td>Couple family* without children</td>
<td>21</td>
<td>32</td>
<td>47</td>
</tr>
<tr>
<td>One parent family</td>
<td>3</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Other family type</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>94</td>
<td>127</td>
<td>165</td>
</tr>
</tbody>
</table>

*Excludes same sex couple families in 1996 only

\(^{12}\) Towns in Time 2006. Spatial Analysis and Research, Dept. of Planning and Community Development.
2.2.4 housing profile

New dwelling building permits issued in Moriac township has fluctuated from 10 dwellings in 2002 to 4 dwellings in 2008 as illustrated in Table 9. This is equivalent to an average of 7 new dwellings over a six year period.

Table 9: no. of building permits issued (for dwellings) 2002 – 2008

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Total dwellings in the Moriac township increased by 38% between 1996 and 2006 from 117 to 190 dwellings respectively. (refer table 10)

Table 10: Dwelling number

<table>
<thead>
<tr>
<th>Dwellings - Number</th>
<th>1996</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Occupied private dwellings</td>
<td>113</td>
<td>97%</td>
<td>146</td>
</tr>
<tr>
<td>Unoccupied private dwellings</td>
<td>4</td>
<td>3%</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL (private dwellings)</td>
<td>117</td>
<td>100%</td>
<td>155</td>
</tr>
</tbody>
</table>

The largest share of household size in Moriac township in 2006 were 2 and 4 persons household as compared to 2 persons household in Surf Coast Shire and the Geelong region. The average household size was 3.23 persons in 2006 as compared to 2.53 persons in Surf Coast Shire and 2.47 persons in the Geelong region.

As would be expected from the age profile and family composition statistics, the average household size in Moriac is noticeable larger than for the whole Shire and the Geelong Region (Refer table 11).

Table 11: household size

<table>
<thead>
<tr>
<th></th>
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<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>1 person</td>
<td>9%</td>
<td>9%</td>
<td>7%</td>
<td>21.6%</td>
<td>25.8%</td>
<td></td>
</tr>
<tr>
<td>2 persons</td>
<td>24%</td>
<td>25%</td>
<td>30%</td>
<td>36.2%</td>
<td>35.2%</td>
<td></td>
</tr>
<tr>
<td>3 persons</td>
<td>14%</td>
<td>16%</td>
<td>14%</td>
<td>15.3%</td>
<td>14.9%</td>
<td></td>
</tr>
<tr>
<td>4 persons</td>
<td>27%</td>
<td>28%</td>
<td>30%</td>
<td>17.1%</td>
<td>15.1%</td>
<td></td>
</tr>
<tr>
<td>5 or more persons</td>
<td>26%</td>
<td>21%</td>
<td>19%</td>
<td>9.9%</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Av. household size (persons)</td>
<td>3.45</td>
<td>3.29</td>
<td>3.23</td>
<td>2.53</td>
<td>2.47</td>
<td></td>
</tr>
</tbody>
</table>

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13 Surf Coast Shire, building permits database
2.2.5 population forecast

Forecasting the population of Moriac urban area is difficult due to the relatively small size of population. However, Id consultants have prepared age structure population forecasts for the wider Moriac – Rural East area comprising the urban township of Moriac and rural localities of Barabbool, Buckley, Freshwater Creek, Gnarwarre, Modewarre, Moriac, Mount Moriac and Paraparap.

Assuming a continuing reasonable availability of residential land, id consultants forecast Moriac – Rural East will grow at an average annual rate of 1.4% from 2,506 persons in 2006 to 3,530 persons in 2031. This represents an increase of 1,022 persons by 2031. (Refer Table 12)

Table 12: age structure population forecast (Moriac – Rural East)\textsuperscript{15}

<table>
<thead>
<tr>
<th>5 year age groups (persons)</th>
<th>2006</th>
<th>%</th>
<th>2016</th>
<th>%</th>
<th>2031</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td>174</td>
<td>6.9</td>
<td>170</td>
<td>5.9</td>
<td>212</td>
<td>6</td>
</tr>
<tr>
<td>5 to 9</td>
<td>214</td>
<td>8.5</td>
<td>220</td>
<td>7.7</td>
<td>273</td>
<td>7.7</td>
</tr>
<tr>
<td>10 to 14</td>
<td>233</td>
<td>9.3</td>
<td>255</td>
<td>8.9</td>
<td>303</td>
<td>8.6</td>
</tr>
<tr>
<td>15 to 19</td>
<td>199</td>
<td>7.9</td>
<td>196</td>
<td>6.8</td>
<td>232</td>
<td>6.6</td>
</tr>
<tr>
<td>20 to 24</td>
<td>78</td>
<td>3.1</td>
<td>106</td>
<td>3.7</td>
<td>124</td>
<td>3.5</td>
</tr>
<tr>
<td>25 to 29</td>
<td>84</td>
<td>3.4</td>
<td>108</td>
<td>3.8</td>
<td>124</td>
<td>3.5</td>
</tr>
<tr>
<td>30 to 34</td>
<td>128</td>
<td>5.1</td>
<td>150</td>
<td>5.2</td>
<td>186</td>
<td>5.3</td>
</tr>
<tr>
<td>35 to 39</td>
<td>191</td>
<td>7.6</td>
<td>204</td>
<td>7.1</td>
<td>252</td>
<td>7.1</td>
</tr>
<tr>
<td>40 to 44</td>
<td>230</td>
<td>9.2</td>
<td>242</td>
<td>8.4</td>
<td>300</td>
<td>8.5</td>
</tr>
<tr>
<td>45 to 49</td>
<td>235</td>
<td>9.4</td>
<td>243</td>
<td>8.5</td>
<td>293</td>
<td>8.3</td>
</tr>
<tr>
<td>50 to 54</td>
<td>182</td>
<td>7.3</td>
<td>231</td>
<td>8.1</td>
<td>274</td>
<td>7.8</td>
</tr>
<tr>
<td>55 to 59</td>
<td>199</td>
<td>7.9</td>
<td>219</td>
<td>7.6</td>
<td>249</td>
<td>7.1</td>
</tr>
<tr>
<td>60 to 64</td>
<td>120</td>
<td>4.8</td>
<td>161</td>
<td>5.6</td>
<td>210</td>
<td>5.9</td>
</tr>
<tr>
<td>65 to 69</td>
<td>103</td>
<td>4.1</td>
<td>156</td>
<td>5.4</td>
<td>179</td>
<td>5.1</td>
</tr>
<tr>
<td>70 to 74</td>
<td>58</td>
<td>2.3</td>
<td>85</td>
<td>3</td>
<td>132</td>
<td>3.7</td>
</tr>
<tr>
<td>75 to 79</td>
<td>46</td>
<td>1.8</td>
<td>58</td>
<td>2</td>
<td>87</td>
<td>2.5</td>
</tr>
<tr>
<td>80 to 84</td>
<td>19</td>
<td>0.8</td>
<td>39</td>
<td>1.4</td>
<td>67</td>
<td>1.9</td>
</tr>
<tr>
<td>85 and over</td>
<td>12</td>
<td>0.5</td>
<td>25</td>
<td>0.9</td>
<td>33</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>2505</td>
<td></td>
<td>2868</td>
<td></td>
<td>3530</td>
<td></td>
</tr>
</tbody>
</table>

The population forecasts indicate that the 10-14 and 40-44 age groups will comprise the largest proportions of persons in Moriac – Rural East district to the year 2031.

The factors that influence the population forecast of Moriac Rural – East include the age structure of the existing population, the migration pattern and the supply of dwellings and mix of housing stock in the area.

Given a significant variation in the growth in the Moriac township area as opposed to the Moriac Rural – East area, the following scenarios for rate of growth in population in the Moriac township to the year 2031 are suggested.

- **High growth – 3.5% per year** – based on continuous growth rate experienced between 2001 – 2006. (1,130 persons by 2031)
- **Moderate growth – 2.5% per year** based on the id consultants’ 1.4% growth forecast for the Moriac and Rural East area, but given significant variations in growth in the township area as opposed to the rural area. (964 persons by 2031)
- **Limited Growth – 1.1% per year** based on the growth in rural parts of Moriac locality (793 persons by 2031)

\textsuperscript{15} ID Consulting (2008)
A moderate growth is suggested to be the likely scenario, (assuming no growth constraints) however, since the availability of residential land and provision of infrastructure are the most important determinant of the population growth of Moriac, the likely population growth scenario will need to be reviewed to take into consideration likely growth constraints.

### 2.2.6 Key Influences

The key factors that are likely to influence population growth in Moriac include:

- The availability of serviced residential land in Moriac.
- The availability of serviced land in the growth nodes in Armstrong Creek, Torquay and Winchelsea.
- The availability of reticulated sewerage.
- Increased accessibility to Moriac including the construction of the Geelong by-pass and duplication of the Princess Highway.
- Council growth policies for the shire which currently focus growth in Torquay and Winchelsea.
- Transport costs including future cost of petrol and minimal public transport service.

### 2.3 Environmental Assets

#### 2.3.1 Introduction

Environmental land use issues expressed at the recently held Moriac Visioning forum and on-line eforum threads include:

- The need to have slow paced sustainable development and maintain a rural character.
- Develop green belt areas eg. along creeks, salinity areas.
- Need to preserve and provide significant native vegetation.
- Limit environmental impacts by enhancing values and protecting the environmental assets of the township.
- Provide vegetation linkages and buffers.
- Provide trees as windbreaks to protect urban edge from paddock dust/fertilisers blowing in.
- Protect cultural heritage and sensitive environmental areas.
- Support for local land care group to revegetate Creek corridor.
- Keep creek corridors (Thompson/Ravens Creek) as public open space.

It is pertinent to undertake an environmental assets, cultural heritage and environmental hazards assessments in response to some of the environmental issues raised at the visioning forum.

#### 2.3.2 Natural Environmental Assets Assessment

**Background**

Surf Coast Shire commissioned Beacon Ecological to undertake an environmental assets assessment\(^\text{16}\) as part of the Moriac Structure Plan review.

The Moriac Environmental Assessment comprised of the following tasks:

- A desktop review of existing environmental information pertaining to the study area including relevant Department of Sustainability and Environment flora and fauna databases.
- On-ground field surveys of all environmental assets within the Moriac study area
- A description of the conservation significance of all new environmental assets identified.

The study area includes the township of Moriac and surrounding region bounded by Hunts Road in the east, Thomson Creek in the south between Hunts Road and Hendy Main Road and through private property from Hendy Main Road to Churches Road.

\(^{16}\) Moriac Environmental Assets Assessment, Beacon Ecological, April 2009
Findings

The assessment indicated that the study area supports scattered occurrences of environmental assets comprising native grasslands within road and rail reserves, ‘Plains Grassy Woodland’ within road side reserves and scattered mature native Eucalypt trees in the north west of the study area.

Swampy Riparian Woodland in one small patch on Thompsons Creek and aquatic and semi-aquatic native vegetation occur within major drainage lines.

Nine patches of native vegetation are recommended to be protected in Surf Coast Planning Scheme. In addition, three wetland areas including Ravens Creek and the upper reach of the Thompsons Creek were proposed to be protected in the planning scheme. Fig 10 indicates the natural environment assets of Moriac.

Fig 10: Moriac Natural Environment Assets

The method of protection of an area of scattered mature native trees, identified to the northwest of the Moriac township may require to be investigated in the planning scheme.

2.3.3 Cultural heritage assessment

The Surf Coast “Places of Cultural Significance Study” identifies a number of places in the Moriac locality that may have heritage significance. All these places are subject to detailed assessment to clearly substantiate their scientific, aesthetic, architectural or historical interest or other special cultural or natural values.
A desktop review of the inventory undertaken by consultants in 2008\textsuperscript{17} recommends places in Moriac which require further assessment to determine protection in the planning scheme. These places are indicated in Table 13.

Table 13: List of potential Moriac heritage assets

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Otway Rd. – Moriac General Store.</td>
<td>Timber shop and residence with tile roof and verandah over the footpath, located on prominent crossroads site in Moriac. There is a small separate section of the shop with a separate entry door for the post office and bank. Early shop signs above the verandah read, 'Moriac Store', 'McAlpin's Flour', and 'Sunshine Biscuits are better'. This was the first building built in the Hendy Subdivision (c1924) that created Moriac. The store is a local landmark.</td>
</tr>
<tr>
<td>Cape Otway Rd. – Moriac Township Precinct</td>
<td>The precinct includes a number of individually recorded places: railway station, houses on Cape Otway Road, general store, adjacent shop and houses, school and church.</td>
</tr>
<tr>
<td>Hendy Main Rd. – Moriac Primary School.</td>
<td>School complex of a number of small timber buildings. The earliest section is a small single room weatherboard building (c1922) with gable roof clad in iron, now used as an office. The additional buildings have been added to the site in stages, and include a teacher’s residence, and buildings added when the Buckley and Moriac schools were amalgamated here in 1993.</td>
</tr>
<tr>
<td>Hendy Main Rd. – Ravenswood.</td>
<td>Homestead. Larger property now subdivided into smaller allotments. The Deppeler Bros. occupied the property c1908. They were influential in the development of the Moriac township. They built the school, moved the Paraparap School onto its site, provided entertainment, moved the church to its present site, and many other important community projects. [Moriac Workshop]</td>
</tr>
<tr>
<td>550 Cape Otway Rd. – Wandella.</td>
<td>Large Victorian weatherboard house with iron roof, set within a large and well established garden.</td>
</tr>
<tr>
<td>795 Hendy Main Rd. – Moriac Uniting Church.</td>
<td>St Patricks Roman Catholic Church, Mt Moriac, was erected c1863 to the designs of Andrew McWilliams, architect. The builders were Lodge Bros. and W.J. Kelly. The original Early English Gothic style church was destroyed in cyclonic winds on 22 July 1926. The reconstructed church is a simple parish church picturesquely situated in Moriac.</td>
</tr>
<tr>
<td>545 Cape Otway Rd. – Fairview.</td>
<td>Large white weatherboard house with tin roof, verandah on two sides, decorative timber gateway and large garden</td>
</tr>
<tr>
<td>Cnr of Mt Duneed Rd and Pattavell Rd – Former Pattavell school site</td>
<td>Site only. A few bricks and some cypress trees remain from the former school.</td>
</tr>
</tbody>
</table>

\textsuperscript{17} Surf Coast Shire Heritage Study Stage 2B 2007-08, Dr David Rowe: Authentic Heritage Services Pty Ltd & Wendy Jacobs: Architect & Heritage Consultant
The Aboriginal Heritage Act 2006 introduced a requirement to prepare a Cultural Heritage Management Plan if all or part of the activity is listed as high impact, resulting in significant ground disturbance, and all or part of the activity area is an area of cultural heritage sensitivity.

The Thompson and Raven Creek corridor has been identified as an area of possible cultural heritage sensitivity in a map by the Department of Planning and Community Development and Aboriginal Affairs Victoria18.

At the time when planning applications are lodged for new development, an assessment of whether a cultural management plan is required will be made.

2.3.4 Environmental hazard assessment

Flooding

The extent of flooding along the creek corridor is generally indicated by the ‘Land Subject to Inundation Overlay’ (LSIO) and ‘Floodway Overlay’ (FO) in the planning scheme (Refer Fig 11). The purposes of these overlays in the planning scheme include:

- LSIO - to identify land in flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.
- FO - to identify waterways, major flood paths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.

In addition, there is a propensity for property and road flooding where the existing stormwater infrastructure capacity and treatment does not match contemporary standards, particularly along Hendy Main Road.

Fig 11: Planning Scheme ‘land subject to inundation overlay’ and ‘floodway overlay’ map

Fire prone

Wildfire is generally not considered to be a high risk in the Moriac locality.

Land indicated as having high wildfire risk is identified by the Wildfire Management Overlay in the planning scheme. There is currently no Wildfire Management Overlay within the Moriac Study Area.

Salinity

A salinity discharge mapping undertaken by the Department of Primary Industries in May 2005 identified the location of saline discharge on some patches of land in the Moriac locality.

These locations of saline discharge areas are proposed as Salinity Management Overlays (SMO) in the planning scheme to guide its protection.

The proposed SMO located within the Moriac study area is indicated in Fig 12.

Fig 12 : SMO Areas in Moriac study area

Sewerage

There is a need to investigate the provision of some sort of community sewerage system in Moriac to prevent the possible seepage of onsite sewerage disposal into the storm water drainage and the nearby creeks.
2.4. Economic assessment

2.4.1 introduction

The Moriac Visioning Forum and e-forum discussion threads suggested a number of economic related items including the establishment of new businesses to add value to the local community eg. medical centre, bank and a community market.

Suggestions were also made for the need for a light industrial area so that businesses with large building sheds do not operate out of a backyard.

To further explore the justification of these issues, Surf Coast Shire commissioned the preparation of an economic assessment for Moriac as part of the Moriac Structure Plan review to guide its future development.

This report provides an analysis of the demand for commercial employment activities and the ways in which that demand can be satisfied within the town.

The report includes:

- a brief economic profile of Moriac and surrounds
- an assessment of the key economic drivers of the town
- a description of the trade area served by Moriac
- the retail spending of the trade area
- the current balance between retail demand and supply
- a forecast for future retail demand
- an assessment of future demand for industrial and other commercial activities
- an estimate of retail, commercial and industrial land requirements in Moriac

2.4.2 trade area

The economic assessment revealed that commercial activities in Moriac serve the town and surrounding district. The extent of the commercial trade area has been derived from discussions with the proprietor of the General Store/Post Office as the Moriac post office delivery area which extends about 7 km from the township.

The population of the trade area in 2008 is approximately 1,350 persons and has been growing at an average of 2.2% per year since 2001.

To assess likely future economic needs, an assumption on growth needs to be made. For the purpose of this exercise, the consultant projected the population based on a moderate growth scenario of 1.4% per year.

Under this scenario population in the trade area would be:
- By 2011 – 1,450 persons
- By 2016 – 1,550
- By 2021 – 1,660
- By 2031 – 1,910

Total growth in population by 2031 would be around 560 persons, with the majority of these living in the Moriac township.

2.4.3 Assessment summary

The economic assessment report provides an assessment of the current and potential future commercial activity in Moriac and the land area that might be required to accommodate growth in these uses over the period to 2031.

Given the assessment in the report, the following land area requirements are recommended:
- Up to 0.8 ha for retail and related commercial development
- Up to 0.8 ha for ‘service business’ development (including light industrial activity but not large scale production)

Concentration of the retail and related commercial activities in one location is preferred to most benefit consumers and traders.

The existing commercial centre of the town is around the general store at the intersection of Hendy Main Road and Cape Otway Road. The lots fronting Cape Otway Road between Hendy Main Road and The Broadway make up a precinct that is approximately 0.6 ha. This area could accommodate some additional retail development, with the possibility of future expansion to the south (albeit with some redevelopment of houses if required).

Traffic safety and parking would need to be addressed as this precinct develops as the town centre.

The other commercial activities with most prospects for investment in Moriac include construction-related uses, sales (such as the existing plant nursery or rural supplies), automotive or other machinery repairs and other light industrial enterprises.

These can be readily separated from the town centre retail precinct to prevent conflict between the uses. Nevertheless, this group of uses will generally require main road exposure. A position on Cape Otway Road would be generally preferred by these types of businesses.

No recommendation is made on the precise location, but it is suggested the precinct should be a safe distance from the railway crossing and should be on the north side of the road to provide some separation from housing in the rest of the township. This indicative area contains a number of parcels of land that are vacant farmland, or which already contain peripheral commercial activities such as the plant nursery and earth-moving business.

Given its location on the main road through Moriac, adequate controls on a ‘service business’ type precinct in this location should be considered in order to protect the image and amenity of the township.

Indicative location of areas for commercial activity is illustrated in Fig 13.

**Fig 13: Indicative location of areas for commercial activity**
2.5 Infrastructure assessment

2.5.1 Introduction

The Moriac Visioning forum highlighted a number of infrastructure issues including the limitations of the
township not being sewered, additional infrastructure projects required and the need for improvement to
traffic/transport issues within the township.

Whilst there was the acknowledgement that the lack of reticulated sewerage impacts on seepage of waste
water flow into the nearby creek and stormwater drainage, conversely, there was the view that a
recommended larger lot size would enable waste water to be effectively discharged on site.

Additional Infrastructure items suggested at the forum include the provision of water sensitive urban design in
new subdivisions, underground power, bitumen roads and footpaths, a waste water management system, a
secure power supply and a high speed broadband system.

Improvements to traffic/transport issues were also highlighted at the forum. This included the need to limit
heavy trucks passing through the town, widen Cape Otway Road to the highway, provide bicycle lanes,
provide public transport and improve road safety at the intersection of Cape Otway Rd, Hendy Main Rd and
the railway intersection.

The forum also suggested the introduction of design guidelines for streetscape improvement, for example,
the provision of kerb and channel, landscaping, fencing, siting of sheds, footpaths, decorative bollards,
breathe entrance to the town etc.

Following on from the issues raised at the visioning forum, a preliminary infrastructure assessment has been
undertaken to assess existing infrastructure and to highlight further investigations to be undertaken for the
provision of future infrastructure in Moriac.

Confirmation of infrastructure needs will require refinement following confirmation of the town’s preferred
growth strategy due to the close dependency between the two.

2.5.2 Current and future infrastructure

Roads

The current road network within the Moriac locality (refer Fig 14) comprises of:

a) Arterial Roads (Main Roads) - provide major traffic routes, are used by commercial vehicles and carry
large traffic volumes. These roads are also 100% funded and managed by VicRoads. Arterial Roads comprise:

- Hendy Main Road (Cape Otway Road to Anglesea Road)
- Cape Otway Road (Princes Highway to Hendy Main Road)

b) Municipal roads\(^20\), are funded and managed by Council.

For Council management purposes these roads are further broken down into:

- Link Road - The main function of this road is to provide a connection between the residential streets
and the traffic route system (Arterial Roads). An example of a link road is Cape Otway Road Moriac
from Hendy Main Rd to Lowndes Rd.

- Collector Road – This road collects traffic from the lower order roads and carries a higher volume of
traffic, for example, Mt Duneed Rd from Anglesea Rd to Cape Otway Rd.

- Access Road/Street - This road is a local rural road and access to abutting properties. An example is
Bolton Street, Moriac from Cape Otway Rd to Deppler Avenue.

c) Body Corporate Road – managed by owner’s corporations, for example Lloyd Mews.

20 Surf Coast Shire Road Register.
Cooks Lane has been designed for construction in 2009.

Issues identified as a result of the visioning forum and discussions with Council officers for further investigation include:

- Need for an integrated transport network with connectivity especially to the commercial area and school, based on the growth scenarios for the township.

- Need for traffic management improvement at the intersection of Cape Otway Road and Hendy Main Road. This is an important road intersection located at the vicinity of the shops and school. A nearby railway level crossing adds to the potential traffic hazard. The railway crossing is currently under investigation by Asia-Pacific Rail as part of a State-wide safety investigation of railway crossings.

- Need to manage large haulage trucks currently utilising Hendy Main Road to and from the gravel pits.

**Fig 14: Road Hierarchy**
Pathways

Pathways have been identified as a major item of infrastructure required by residents and visitors to the Surf Coast Shire. Council prepared a Pathway Strategy during 2006 to identify the pathways needed and to develop a priority system that can be used to prepare a 10 year capital works program.

The Strategy established a set of standard categories for pathways. These categories include:
- Regional Pathways that serve as arterial links joining towns and providing a facility of significance to the broader community.
- Shared Pathways that are the collector pathway systems within towns.
- Town Pathways that serve the local community linking peoples homes to the shared pathways.
- Bicycle routes that are the on road marked or signed bicycle network for both regional and local use.

The pathways works program for Moriac is identified in Table 14 & 15 and illustrated in Fig 15.

Table 14: Pathways recommended for funding in the 10 Year Surf Coast Shire Works Program in Moriac.

<table>
<thead>
<tr>
<th>Classification/ID</th>
<th>Path name</th>
<th>Path construction</th>
<th>Section from and to</th>
<th>Responsibility</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Route</td>
<td>Layard Road/Larcombe Road 2</td>
<td>On Road Signage</td>
<td>Cape Otway Road to Hendy Main Road</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Bike Route</td>
<td>Church Rd</td>
<td>On-Road Signage</td>
<td>Larcomes Rd to Cape Otway Rd</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Bike Route</td>
<td>Considines Rd/Barrabool Rd</td>
<td>On Road Signage</td>
<td>Cape Otway Rd to Devon Rd</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Bike Route</td>
<td>Hendy Main Rd</td>
<td>On-Road Signage</td>
<td>Princes Hwy to Barrabool Rd</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Shared Path PP1015</td>
<td>Moriac Greenfields Dve (plus Cooks to end Lavinia)</td>
<td>Shared path</td>
<td>18 Greenfields Dve to 42 on Greenfields Dve</td>
<td>SCS</td>
<td>Completed</td>
</tr>
<tr>
<td>Shared Path PP1021</td>
<td>Cape Otway Rd</td>
<td>Shared path</td>
<td>The Broadway to Lloyd Mew</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Shared Path PP1050</td>
<td>Newling Reserve link</td>
<td>Shared path</td>
<td>End car park near Skate park to Hendy Main Rd</td>
<td>SCS</td>
<td>Priority project to be undertaken</td>
</tr>
<tr>
<td>Shared Path PP1017</td>
<td>402 Moriac Buttercup Dve</td>
<td>Shared path</td>
<td>Greenfields Dve to Hendy Main Rd</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Town Path PP1016</td>
<td>Hendy Main Rd</td>
<td>Town path</td>
<td>Greenfields Dve to Newling Reserve entrance</td>
<td>SCS</td>
<td>Completed</td>
</tr>
<tr>
<td>Town Path PP1018</td>
<td>Moriac Creek Trail incl 2 links to Greenfields Dve</td>
<td>Town path</td>
<td>Newling Reserve to Hendy Main Rd</td>
<td>SCS</td>
<td>Priority project to be undertaken</td>
</tr>
</tbody>
</table>

Table 15: Pathways in Moriac not included in the priority 10 Year Works Program or Pathways to be funded by other Land Managers

<table>
<thead>
<tr>
<th>Classification/ID</th>
<th>Path name</th>
<th>Path construction</th>
<th>Section from and to</th>
<th>Responsibility</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Route PP1022</td>
<td>Cape Otway Rd</td>
<td>On Road Sealed Shoulder</td>
<td>Lowndes Rd to Ervins Rd</td>
<td>SCS</td>
<td>High priority for construction</td>
</tr>
<tr>
<td>Bike Route PP1063</td>
<td>Cape Otway Rd (excl Moriac town)</td>
<td>On Road Sealed Shoulder</td>
<td>Shire Boundary West to End Cape Otway Rd at Princes Hwy</td>
<td>SCS</td>
<td>To be undertaken</td>
</tr>
<tr>
<td>Shared Path PP1020</td>
<td>Hendy Main Rd Rail Crossing</td>
<td>Shared path</td>
<td>Hendy Main Rd to Cape Otway Rd</td>
<td>VicTrack Access</td>
<td>To be undertaken</td>
</tr>
</tbody>
</table>

Pathways Strategy, 2006
<table>
<thead>
<tr>
<th>Project ID</th>
<th>Source Path</th>
<th>Path Type</th>
<th>Destination Path</th>
<th>SCS Status</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>Clerke Crt Path</td>
<td>Shared path</td>
<td>Cape Otway Rd to Moriac Kindergarten</td>
<td>SCS</td>
<td>Surf Coast Shire Capital Works Program</td>
</tr>
<tr>
<td>456</td>
<td>Moriac Daniel Drive / Deppler Ave</td>
<td>Town path</td>
<td>Daniel Drive Path Link to Hendy Main Rd</td>
<td>SCS</td>
<td>Surf Coast Shire Capital Works Program</td>
</tr>
<tr>
<td>789</td>
<td>Newling Reserve link</td>
<td>Town path</td>
<td>Clerke Crt to Daniel Dve</td>
<td>SCS</td>
<td>Surf Coast Shire Capital Works Program</td>
</tr>
<tr>
<td>012</td>
<td>Moriac Hendy Main Rd / Reservoir Rd TP</td>
<td>Town path</td>
<td>Cape Otway Rd to Mt Moriac Recreation Reserve</td>
<td>SCS</td>
<td>Surf Coast Shire Capital Works Program</td>
</tr>
<tr>
<td>345</td>
<td>Moriac Cooks Lane</td>
<td>Town path</td>
<td>Lavinia Crt to Hendy Main Rd</td>
<td>SCS</td>
<td>Surf Coast Shire Capital Works Program</td>
</tr>
</tbody>
</table>

Note: The major source of funding will be Surf Coast Shire through the Capital Works Program or through Special Charge Schemes that require a contribution from owners of property that benefit as a result of the works. Funding may also be available from several Government agencies and other sources.

As indicated in Table 14 & 15, two footpath projects have currently been completed and four projects are earmarked as the next priority items identified for implementation. It is envisaged that during 2011/2012 the pathway strategy works program will be revisited with the view of re-prioritising the outstanding projects based on Shire wide priorities.

There is also a need for potential pathways to link with the existing pathways as illustrated in Fig. 15.

Fig 15: Existing and Potential Pathways
Public transport

The provision of public transport continues to be an issue expressed by participants at the local area planning sessions and the Moriac Visioning Forum as one of the most significant barriers to accessing services, employment and community networks.

While the re-opening of the train station in Moriac to provide a commuter stop to Geelong or Warrnambool appears attractive, V/Line has advised that this is not an option in the short to medium term, due to financial viability. There is an opportunity to investigate the re-opening of the railway station in the longer term.

Council has commenced a Transport Connections Project (TCP), called Bringing Communities Together which is a joint initiative of the State Government's Department of Planning and Community Development (DPCD), Department of Infrastructure (DOI), Department of Human Services (DHS) and Department of Education and Early Childhood Development (DEECD). Transport Connections is about communities working together to improve local transport. Through local partnerships and the use of existing assets and services such as taxis, school buses, community buses and volunteers, communities are able to develop innovative approaches that can make participation in community life easier for people with limited access to transport.

This project is currently investigating a shuttle bus run between Anglesea, Torquay, Moriac, and Waurn Ponds.

School bus service

A school bus route currently services Moriac and the outlying areas. This local bus route traverses the township along Hendy Main Road.

Storm water drainage

Generally, storm water drainage is provided to most standard house lots, but a study will be required to investigate the expansion/upgrade of the system.

Car parking and streetscape

The Moriac visioning forum identified car parking at the vicinity of the convenience store and the primary school especially during the school traffic peak hours as inadequate. Discussions with Council officers expressed the need to manage the car spaces and provide traffic management solutions to address this issue.

The visioning forum also identified the need for streetscape improvements in the township. This includes the provision of landscaping, fencing, siting of sheds, footpaths, decorative bollards and town entrance beautification works.

Wastewater Disposal

The lack of reticulated sewerage may constrain future township growth in Moriac. The Moriac Visioning Forum identified a number of issues in response to the limitations of the township not being sewered. These include a requirement for a high-tech household waste water system to retain the water on appropriate size blocks, for example 1 acre lot, and the provision of some kind of community wastewater disposal system.

A small town effluent study was prepared in 2003 in response to a study that identified small towns in the Shires of Moorabool, Surf Coast, Golden Plains and Pyrenees which have the greatest need for community sewerage systems. These towns are serviced by individual household systems such as septic tanks and disposable soakage fields. Moriac was one of the selected towns identified with a potential for improved effluent treatment and disposal system.

The elimination of effluent surface discharge into the creeks, the protection from groundwater contamination and future environmentally sensitive development were the prime objectives of the study.

The study recommended that in relation to Moriac:

- further development of the town should be restricted to those areas serviced by a possible community sewerage scheme.
- the proposed area for the community sewerage system comprises the high density areas of the township to the north-east. This area incorporates most of the township ‘smaller lots’ which experience the greatest difficulty in containment of wastewater.
the remainder of the built up areas within the Township zone and those areas most conducive to subdivision be rezoned to Low Density Residential Zone to prevent reoccurrence of existing problems.

- those areas not serviced by a reticulated collection system, require a detailed land capability assessment proving the ability to satisfactorily treat and dispose of wastewater on site.

**Other consideration**

If Moriac is to grow it would be reasonable to expect the town to be serviced either with a reticulated sewerage system or some form of ‘packaged’ sewerage system ie. decentralised on-site wastewater treatment system (DOWTS).

A DOWTS is a relatively new concept which has been used to effectively manage domestic wastewater by using a type of wastewater treatment system for small townships or problem areas and re-using the treated water to irrigate a common area e.g. park land, recreational areas, farm land etc. DOWTS can be more socially, economically and environmentally feasible than providing reticulated sewerage.

**Water**

Moriac is supplied with reticulated water directly from the Wurdee Boluc Transfer Main, which is the main pipeline which supplies Geelong and the Bellarine Peninsula. This pipeline basically runs through the centre of Moriac and as a result there is adequate capacity to service any reasonable planned growth in the township.

Barwon Water would prefer any future growth to be located south of the railway line as this land is of a lower elevation and could be supplied by gravity. Development of the higher elevation land north of the railway line towards Mt Moriac is possible but would likely require the construction of booster pumps and tanks.

**2.5.3 further investigations**

Table 16 comprises short and medium term ‘infrastructure’ investigations identified to be undertaken in Moriac.

<table>
<thead>
<tr>
<th>Table 16:</th>
<th>Infrastructure investigation items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Timeframe*</td>
</tr>
<tr>
<td>1.</td>
<td>Short</td>
</tr>
<tr>
<td>2.</td>
<td>Short</td>
</tr>
<tr>
<td>3.</td>
<td>Medium</td>
</tr>
<tr>
<td>4.</td>
<td>Medium</td>
</tr>
<tr>
<td>5.</td>
<td>Short</td>
</tr>
<tr>
<td>6.</td>
<td>Medium</td>
</tr>
<tr>
<td>7.</td>
<td>Medium</td>
</tr>
<tr>
<td>8.</td>
<td>Medium</td>
</tr>
<tr>
<td>9.</td>
<td>Medium</td>
</tr>
<tr>
<td>10.</td>
<td>Long</td>
</tr>
</tbody>
</table>

*Short term – (1-3 years)   Medium term (3-10 years)   Long term (10 years+)
2.6 Lot supply and land options

2.6.1 introduction

The urban boundary of Moriac township has changed incrementally since the preparation of the first structure plan in 1979. The original township comprised mainly of some 80 conventional suburban lots located at the south western corner of Cape Otway Road and Hendy Main Road.

By 1991, the township had spread from the original location mainly in a westerly and southerly direction but with some extension along Cape Otway Road in an easterly direction and comprised of some 55 rural residential type lots.

Presently, the township is bounded by Cape Otway Road in the north, Hendy Main Road to the east, Thompasons Creek tributary to the south and the Low Density Residential Zone boundary to the west.

Current Council policy does not promote or anticipate significant growth in Moriac over the next 15 to 20 years. Council's Municipal Strategic Statement notes the need to manage population growth in an environmentally sustainable manner and make effective use of physical and social infrastructure and nominates Torquay/Jan Juc and Winchelsea as the growth nodes within Surf Coast Shire.

Nevertheless, it is pertinent to assess future lot supply and land options in Moriac.

2.6.2 residential lot supply

Council has recently undertaken an analysis of lot supply in the Moriac township. This analysis has indicated that there are approximately 16 vacant subdivided lots available in the township. (Refer Fig 16).

![Fig 16 : Total vacant land, Moriac Township](image)

Legend:
- Vacant land
- Township boundary

Vacant (subdivided lots) – 16 lots
2.6.3 future growth

To determine the number of years of residential growth the vacant lot supply will sustain, it is necessary to calculate the rate of take-up, by analysing residential building approval issued in Moriac township during the period 2002 -2008. (Refer table 17)

Table 17: dwelling approvals issued (for dwellings) 2002 – 2008

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Fig 17 indicates that during 2002-2008 building approvals peaked in 2002 and 2006 (10 dwellings per annum) but declined markedly during 2008 (4 dwellings per annum). This analysis is however largely academic as the recent drop in dwelling construction would largely be attributed to the drying up of land supply.

To determine the longevity of lot supply, the take-up of lots per year has been based on the average of new dwelling approvals per annum over 2002 -2008. This period includes both high and low building activities. The average number of approvals issued for new dwellings has been 7 dwellings per annum,

Based on the average building approvals rate of 7 dwellings per annum, Moriac has a minimum of 2.3 years supply of lots within the township (Refer table 18). Clearly, without further rezoning, Moriac’s growth is approaching a period of stagnation.

Table 18: Potential supply of residential zoned land

<table>
<thead>
<tr>
<th>Vacant land</th>
<th>No. of lots</th>
<th>Ave. dwelling approval per annum</th>
<th>Years supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subdivided lots</td>
<td>16</td>
<td>7</td>
<td>2.3</td>
</tr>
</tbody>
</table>

22 Surf Coast Shire, building permits database
Assuming there are no constraints to growth and an availability of residential land, the population forecast for Moriac to the year 2031 is estimated to be 964 persons (based on an annual population growth rate of 2.5% per annum (ie. Moderate growth scenario)).

Based on the average household size (3.2 persons – 2006 ABS Census), it is estimated that 91 additional lots will be required by 2031. (Refer Table 19)

**Table 19:** Estimated number of lots required to accommodate 2031 projected population in Moriac

<table>
<thead>
<tr>
<th>Item</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant Residential Lots in 2009</td>
<td>16 lots</td>
</tr>
<tr>
<td>Proportion of occupied dwellings able to be accommodated by vacant lots (2006 Occupancy rate 93%)</td>
<td>15 dwellings</td>
</tr>
<tr>
<td>New Permanent Population Accommodated by Vacant Lots (15 new dwellings X 3.23 average persons per household)</td>
<td>48 persons</td>
</tr>
<tr>
<td>Population capacity - Estimated population in 2009 (639 persons) and Permanent population accommodated by vacant lots (48 persons)</td>
<td>687 persons</td>
</tr>
<tr>
<td>Projected population in 2031</td>
<td>964 persons</td>
</tr>
<tr>
<td>Total permanently occupied dwellings required to accommodate projected Population ( 964 persons / 3.2 ave. persons per household)</td>
<td>301 dwellings</td>
</tr>
<tr>
<td>Shortfall in population to be accommodated</td>
<td>277 persons</td>
</tr>
<tr>
<td>964 persons (Projected population) – 687 persons (est. current population.) persons</td>
<td>85 lots</td>
</tr>
<tr>
<td>Additional lots required for occupied dwellings (277 persons + 3.23 average persons per household)</td>
<td>85 lots</td>
</tr>
<tr>
<td>Additional lots required for non permanently occupied dwellings</td>
<td>6 lots</td>
</tr>
<tr>
<td><strong>Additional lots/dwellings required by 2031. (Assuming 1 dwelling per lot)</strong></td>
<td><strong>91 lots or dwellings</strong></td>
</tr>
</tbody>
</table>

The Table 19 demonstrates that a shortfall of 91 lots in the Moriac Township is required to accommodate the projected population in the township by 2031 (assuming there is no constraint to growth).

It is suggested, however, that Council policy and growth constraints more than any other factor will largely determine growth.

In relation to potential demand for dwellings, anecdotal evidence from real estate agents confirm a demand for ‘rural residential’ type housing and stable house prices in Moriac.

**2.6.4 Other land considerations**

In determining future residential land options in Moriac, it is important to consider the objectives of the State and Local Planning Policy Frameworks, which are set out in the Surf Coast Planning Scheme.

The State Planning Policy Framework requires that Planning authorities should plan to accommodate projected population growth over at least a 10 year period, taking account of opportunities for redevelopment and intensification of existing urban areas as well as the limits of land capability and natural hazards, environmental quality and the costs of providing infrastructure.

Without some form of collective sewerage treatment, future development would be for a rural residential form as has occurred over the recent years.
It is recognised that rural residential living opportunities are actively sought within the Surf Coast Shire and particularly in the Moriac locality. Council's Rural Residential Strategy identifies Moriac as potentially suitable for future Rural Residential development. However, should Rural Residential type development continue to be supported in Moriac?

Clause 16.03-2 of the State Planning Policy Framework (SPPF) in the Surf Coast Planning Scheme states that:

‘Land should only be zoned for rural living or rural residential development where it:

- Is located close to existing towns and urban centres, but not in areas that will be required for fully serviced urban development
- Can be supplied with electricity and water and good quality road access. Land should not be zoned for rural living or rural residential development if it will encroach on high quality productive agricultural land or adversely impact on waterways or other natural resources.’

Council's Local Planning Policy Framework (LPPF) in the Surf Coast Planning Scheme also considers the issue of rural residential development, but in much more detail than the SPPF. Clause 21.04-2 contains the following discussion and key objectives:

‘These forms of subdivision and development necessarily consume large quantities of land and tend to detract from the economic efficiency of physical and social infrastructure. When not planned effectively they can limit opportunities for conventional urban growth, remove agricultural land from production, adversely impact on environmental and scenic landscape values, and promote speculative market trends and land prices in rural areas. Notwithstanding these issues, rural residential development is a popular and legitimate lifestyle alternative for many residents in the Surf Coast Shire. There is constant demand for further subdivision and development of this nature.’

Key Objectives

- To consolidate rural residential and rural living development within existing areas zoned for such purposes.
- To evaluate opportunities for new rural residential and rural living subdivision only within those areas specifically identified in the Municipal Strategic Statement as special investigation areas.’

It is clear that both the SPPF and LPPF support only the limited provision of rural residential development to be located within certain areas and under defined parameters.

In addition, Ministerial Direction 6 on Rural Residential development must be taken into consideration when providing rural residential type development. The purpose of this Direction is to manage the provision of sustainable rural residential development so that it supports sustainable housing and settlements and does not compromise Victoria’s agricultural, natural, environmental, landscape and infrastructure resources.

The Directions include a demonstration that the proposed rural residential development:

- Is consistent with the housing needs and settlement strategy of the area.
- Is supported by and supports sustainable and viable settlements and communities.
- Does not comprise the sustainable future use of existing natural resources, including productive agricultural land, water, mineral and energy resources.
- Protects existing visual and environmental qualities of the area, such as landscape, water quality, native vegetation, habitat and biodiversity.
- Avoids predictable adverse environmental processes and effects, such as flooding, erosion, landslip, salinity or wildfire.
- Can efficiently be serviced by social and physical infrastructure, at an acceptable and sustainable community cost.

2.6.5 Options for residential growth

The residential growth of Moriac is influenced by current Council policy to manage population growth in an environmentally sustainable manner and make effective use of physical and social infrastructure by focussing growth at two nodes i.e., Torquay/Jan Jac and Winchelsea. Within this context, four options may be considered in determining the future residential growth in Moriac. (Refer to Table 20 for indicative implications of options)
**Option A** – No growth based on the assumption that ‘in-fill’ development only will occur within the existing zoned land mainly on the 16 remaining vacant properties. This scenario assumes Moriac’s population will grow to 650 persons in 2031.

**Option B** – Limited growth based on the scenario that contemplates that future land will be required for fully serviced urban development with the provision of reticulated sewerage in the longer term. In the interim, a very limited area for low density residential development should be provided. This scenario assumes a population forecast of 790 persons in 2031. (Assumes a limited growth rate of 1.1% per year and an additional 25 ha. of land.)

**Option C** – Moderate growth based on a medium growth scenario of accommodating Moriac’s forecast population growth on a staged basis to the year 2031. As with option B, this option still assumes the provision of some form of reticulated sewerage in the long term but makes greater provision for low density residential in the short to medium term. This scenario assumes a population forecast of 964 persons in 2031. (Assumes a moderate growth of 2.5% per year and an additional 50 ha. of land)

**Option D** - High growth scenario assumes that a population forecast for Moriac at 2031 of 1,200+ persons based on 3.5 % growth per year. It is noted that for this option to occur, Council’s higher order strategic framework plan which currently focuses growth in two nodes, Torquay/Jan Jac and Winchelsea will have to be reviewed. This would necessitate a separate wider study.

The supply and demand analysis has established that in order to accommodate the forecast increase in population, there is a need to supply additional land to the year 2031. The options available to accommodate any growth in future residential development are impacted by a range of constraints and opportunities including:

**Constraints**
- Current Council high order policy to focus growth in two nodes at two nodes, Torquay/Jan Jac and Winchelsea may limit future growth options in Moriac.
- The Geelong - Warrnambool railway line provides a physical barrier to the north of the township.
- The drainage catchment boundary located at the east – west ridgeline along the Cape Otway Road will impact on direction for economical drainage of the land.
- A buffer to the creek to enhance environmental values of the creek and protect effluent seepage.
- Limitations of future infrastructure and sewerage provision.
- Location criteria for broad hectare residential provision (refer below).
- Lack of public transport.

**Opportunities**
- Opportunity for residential development.
- Potential pathway linkages.
- Availability of relatively flat land.
- Compact size of township and access to the town centre and community facilities.
- Proximity to Geelong – duplication of the Princess Highway.

It is recommended that Option B – Limited growth is the preferred option since this option contemplates that future land will be required for fully serviced urban development with the possible provision of reticulated sewerage in the longer term. In the interim, a limited area for low density residential development should be catered for.
### Table 20: Indicative Implication of Growth Options

<table>
<thead>
<tr>
<th>Options</th>
<th>2031 Forecast population</th>
<th>2031 Town size</th>
<th>Residential Density</th>
<th>Neighbourhood character</th>
<th>Infrastructure</th>
<th>Environment</th>
<th>Leisure &amp; community facilities</th>
<th>Economic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option A – No growth</strong></td>
<td>650 persons</td>
<td>650 persons</td>
<td>Low-density (No change)</td>
<td>No change</td>
<td>Very minor infrastructure upgrade eg storm water, Cape Otway/Hendy Main Rd intersection improvement.</td>
<td>Very minor environmental change. Eg Creek improvement.</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>– based on the assumption that 'in-fill' development only will occur within the existing zoned land mainly on the 16 remaining vacant properties.</td>
<td>- based on 'in fill' development.</td>
<td>• Ave 3 persons / year</td>
<td>• Ave .5 dwelling / year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option B – Limited growth</strong></td>
<td>790 persons</td>
<td>790 persons</td>
<td>LowDensity (No change)</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal Change to provision of economic facilities</td>
</tr>
<tr>
<td></td>
<td>– based on the assumption that future land will be required for fully serviced urban development and a very limited low density residential lots is provided in the interim.</td>
<td>(Low Growth - 1.1% per year),</td>
<td>• Ave 9 persons / year</td>
<td>• Ave 2 dwelling / year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>An additional 25 ha based on an additional 40 lots at a 'rule of thumb' 6,000 sq m per lots.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option C – Moderate growth</strong></td>
<td>964 persons</td>
<td>964 persons</td>
<td>Low Density (No change)</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal change</td>
<td>Minimal Change to provision of economic facilities</td>
</tr>
<tr>
<td></td>
<td>– to accommodate forecast population growth on a staged basis to the year 2031. Development beyond 2031 subject to future review at the time</td>
<td>(Moderate growth - 2.5% per year),</td>
<td>• Ave 18 persons / year</td>
<td>• Ave 5 dwellings / year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>An additional 55 ha. to accommodate additional 91 low residential lots. These lots to be provided in stages over the forecast period.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option D – High growth</strong></td>
<td>1,200 persons</td>
<td>1,200 persons</td>
<td>Low density lots will provide for rural residential character however the size of the town will almost double.</td>
<td>Need for moderate growth in infrastructure services eg, Water, Power, storm water, drainage, street lights, pathways etc. mostly paid for by developer.</td>
<td>Some impact on Environmental Assets will need to be addressed. Stormwater and effluent disposal will need to be managed.</td>
<td>Some impact on leisure and community facilities in the longer term. Opportunities for additional facilities have been identified. Eg, upgraded skateboard park, implementation of outstanding items in the Newling and Mt Moriac reserve Masterplans.</td>
<td>Likely expanded retail centre and other commercial facilities eg a service business area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– to accommodate high growth rate of population to the year 2031, Subject to higher order review of Shire's growth policies.</td>
<td>(High growth based on &gt; 3.5% per year growth rate.</td>
<td>• Ave 28 persons / year</td>
<td>• Ave 9+ dwellings / year</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>additional 48ha+ (based on additional 167+ lots.)</td>
<td>A combination of low density and standard urban residential density. (assuming 20% low density residential lot sizes - ave. lot size = 4,000 sq m, 80% standard urban lots - ave size 900 sq m)</td>
<td>A majority of standard urban lots will mean an urban character. The size of the town will increase by about half as much.</td>
<td>Need for greater area required for infrastructure services, eg. Water, Power, sewerage, storm water, drainage, street lights, pathways etc. Cost of provision of infrastructure likely to be through a special charge rate and developer contributions.</td>
<td>A greater impact on Environmental Assets will need to be addressed</td>
<td>May require additional expansion of Kindergarten and Primary school facilities.</td>
<td>There may be need for an expanded retail centre and other commercial facilities eg a service business area</td>
</tr>
</tbody>
</table>

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53
Assessment of potential parcels of land

Four land parcels of land have been nominated for investigation as possible sites to accommodate limited growth in Moriac. These areas do not have significant impacts on the range of locational criteria identified below and are located contiguous to the existing urban area of Moriac. The site areas have been chosen so that all land adjacent to existing residential areas are examined, with boundaries determined primarily on the basis of land tenure or by existing roads or other physical features.

The four areas for investigation are shown on Fig 18 and are described as follows:

- Area 1: North West Moriac (11.2 hectares)
- Area 2: North East Moriac (13.5 hectares)
- Area 3: East Moriac (10.5 hectares)
- Area 4: West of Moriac (14.7 hectares)

It is emphasised that site boundaries are not fixed and it may be that findings of the assessments may result in all, part or none of a site being recommended as a suitable location for future residential development. It is also recognised that it will be critical to consult with relevant landowners should a site, or part thereof, be further recommended for future residential development.

Each site has been investigated with regard to the locational criteria set out below and the objectives and other parameters identified in the Planning Scheme.

- Agricultural quality of land
- Flood propensity
- Wildfire risk
- Slope
- Incidence of salinity
- Heritage values
- Land area
- Tenure
- Existing use of land
- Relationship of the site to Moriac township (including access to community services and facilities)
- Infrastructure: cost and availability (water, sewerage, drainage, transport, power)
- Environmental assets
- Scenic landscape values
- Amenity of the site and surrounds / compatibility with adjacent land uses

Preliminary assessment indicates that the four investigation areas were not considered to be affected by the following locational criteria.

1. Land classified as having ‘Very High’ or ‘High’ agricultural quality as the Surf Coast Shire Council is committed to preserving high quality agricultural land for rural pursuits. (Classifications determined by RG Ashby & Co P/L and recorded in the Surf Coast Shire Rural Land Use Strategy 1997)
2. Land identified as flood-prone and affected by the Floodway Overlay or Land Subject to Inundation Overlay in the Surf Coast Planning Scheme.
3. Land identified as having Wildfire risk as identified by the Wildfire Management Overlay on the Surf Coast Planning Scheme.
4. Land identified as salinity discharge locations as part of the DSE salinity mapping project.
5. Land containing steep slopes considered sufficiently steep to inhibit future residential development.
6. No aboriginal archaeological surveys for the investigation sites have been undertaken. These assessments will be required as part of any application to rezone land for future residential development.
A preliminary assessment of the four investigation areas in relation to the remaining locational criteria is provided in Table 21.

**Table 21: Preliminary assessment of the investigation areas against the locational criteria.**

<table>
<thead>
<tr>
<th>Locational criteria</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
<th>Area 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land area</td>
<td>11.2 ha</td>
<td>13.5 ha</td>
<td>10.5 ha</td>
<td>14 ha</td>
</tr>
<tr>
<td>Tenure</td>
<td>5 owners (fragmented land ownership)</td>
<td>1 owners</td>
<td>2 owners</td>
<td>2 owners</td>
</tr>
<tr>
<td>Existing use of Land</td>
<td>Agricultural/housing</td>
<td>Agricultural farming purposes</td>
<td>Agricultural farming purposes</td>
<td>Agricultural farming / housing</td>
</tr>
<tr>
<td>Relationship of the site to Moriac township</td>
<td>About 2 km west of the town centre</td>
<td>Closer to the Town centre. Is adjacent to the town centre and Newling Reserve</td>
<td>About 2-3 Km south Town Centre and close to Newling Reserve</td>
<td>Located further away (about 3 km west of the town centre)</td>
</tr>
<tr>
<td>Infrastructure and sewerage; cost and availability</td>
<td>Lack of reticulated sewerage may limit the amount of development</td>
<td>Lack of reticulated sewerage may limit the amount of development.</td>
<td>Lack of reticulated sewerage may limit the density of development.</td>
<td>Lack of reticulated sewerage may limit the density of development. Cost of or provision of infrastructure may be higher due to distance from the township.</td>
</tr>
<tr>
<td>Environmental assets</td>
<td>The Environmental Assets assessment does not indicate this area as containing significant environmental assets.</td>
<td>The Environmental Assets assessment does not indicate this area as containing significant environmental assets.</td>
<td>The Environmental Assets assessment does not indicate this area as containing significant environmental assets.</td>
<td>The Environmental Assets assessment report indicates the extreme north section of this site is of ecological significance supporting mature scattered Eucalypt Trees.</td>
</tr>
</tbody>
</table>
Scenic landscape values

<table>
<thead>
<tr>
<th></th>
<th>Not considered as having significant scenic landscape</th>
<th>Not considered as having significant scenic landscape</th>
<th>Not considered as having significant scenic landscape</th>
<th>Not considered as having significant scenic landscape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenic landscape values</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Amenity of the site and surrounds

<table>
<thead>
<tr>
<th></th>
<th>Proximity of this area to the town centre facilities</th>
<th>Proximity of this area to the town centre facilities and Newling Reserve community facilities</th>
<th>Proximity of this area to the Newling Reserve community facilities</th>
<th>Proximity of this area to the proposed service business type area to the north</th>
</tr>
</thead>
</table>

Based on the preliminary assessment of potential residential sites against the locational criteria, Area 1 and 2, are the preferred options for future residential growth since these areas are closer to the town centre and/or the community facilities at Newling Reserve and do not contain any significant environmental assets.

Area 1 has previously been identified in the 1992 structure plan as a low density residential area and it is recommended this area be developed as Stage 1.

In the absence of the provision of reticulated sewerage, it is recommended that Areas 1 and 2 should be developed as low density residential areas in the short to medium term. The appropriate lot sizes are to be determined, following the preparation of land capability assessments (prior to rezoning) to demonstrate that lot sizes are capable of treating waste water effluent on site.

Potential lot yield for Area 1 & 2 (assuming 6,000 sq m per lot) are as follows:

- Area 1 – 17 lots
- Area 2 – 23 lots
- Total number of potential lots – 40 lots

It is recommended that a development plan overlay be prepared for Area 1 & 2 as part of any rezoning application to maximise the efficient supply of infrastructure and appropriate sustainable principles for development.

In considering Areas 1 and 2 for future low density residential development preliminary assessment against the Surf Coast Planning Scheme is provided in Table 22. It is recommended that detailed assessment against the low density residential principles contained in the Surf Coast Planning Scheme should be undertaken prior to rezoning.
Table 22: Preliminary assessment against the principles for low density residential development in the Surf Coast Planning Scheme

<table>
<thead>
<tr>
<th>Principle</th>
<th>Site 1</th>
<th>Site 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close to existing urban centres</td>
<td>Located within 2 Km from the town centre</td>
<td>Located adjacent to town centre and community facilities</td>
</tr>
<tr>
<td>Must not be in an urban growth corridor</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Can be supplied with appropriate infrastructure</td>
<td>Can be supplied with water, storm water drainage, electricity</td>
<td>Can be supplied with water, storm water drainage, electricity</td>
</tr>
<tr>
<td>Must not encroach on high quality agricultural land</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Must not adversely impact on waterways or other natural resources</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Must meet the requirements of Ministerial Direction No 6:</td>
<td>Rural Residential Strategy identifies Moriac for potential rural residential development</td>
<td>Rural Residential Strategy identifies Moriac for potential rural residential development</td>
</tr>
<tr>
<td>• Is consistent with the housing needs and settlement strategy of the area.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>• Is supported by and supports sustainable and viable settlements and communities.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>• Does not comprise the sustainable future use of existing natural resources, including productive agricultural land, water, mineral and energy resources.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Protects existing visual and environmental qualities of the area, such as landscape, water quality, native vegetation, habitat and biodiversity.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>• Avoids predictable adverse environmental processes and effects, such as flooding, erosion, landslip, salinity or wildfire.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>• Can efficiently be serviced by social and physical infrastructure, at an acceptable and sustainable cost</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2.7 Leisure and community facilities assessment

2.7.1. introduction

Moriac supports a range of community & leisure facilities including, education, leisure and recreation, and other social services that contributes to its liveability. These facilities provide for social interaction between residents, and foster leisure and recreation activities.

The Surf Coast Shire Community Plan ‘Your Visions’ document (2004) acknowledges that the people of Moriac have a strong sense of community spirit and there is a wide range of community groups and activities. Other valued assets noted in the Plan include the town’s road and path network, the primary school and the friendly village atmosphere.

This background paper examines at a broader level the provision of land use community and leisure facilities in Moriac and to a lesser extent the range of services offered. It is important that in developing a Structure Plan review for Moriac that any existing gaps in the provision of infrastructure are identified so that land can be set aside for the purpose of providing future facilities if required.

2.7.2 audit of community & leisure facilities

The audit of community facilities and services was based on:

- A review of previous social planning studies including Surf Coast Shire Community Plan (2004), the Surf Coast Open Space Strategy (Robin Crocker & Assoc, et al, 2004), and the draft Surf Coast Pathways Strategy (Surf Coast Shire, 2005).
- Discussions with officers from a range of Council departments including Leisure & Recreation, Early Years and Aged Services.
- Site inspections.

Leisure & recreation (including open space provision)

Moriac is well served by three reserves located at the vicinity of township. The Newling Reserve located off Hendy Main Road within the township, Mt Moriac reserve located about 4 km north of the township and Modewarre Reserve located about 5 km to the west of the township.

Newling Reserve covers an area of approximately 6.8 hectares and may be accessed from Hendy Main Rd, Daniel Dve, Anne-Marie Mew, Andrew Mew and Clerke Crt. A community committee known as the Moriac Community Centre and Newling Reserve Advisory Committee assist the Surf Coast Shire in the management, maintenance and improvement of facilities on the reserve.

Newling Reserve has 4 synthetic tennis courts, the Moriac Community Centre, a linear shared pathway, a skate park, a BMX track, an All Access multi age playground, picnic and BBQ facilities, an informal ball game area and another small toddler / junior playground (to be upgraded during 2009).

The Mt Moriac Reserve has 2 ovals to support the Modewarre Football Club and Modewarre Cricket Club, 2 netball courts used by the Modewarre Netball Club, 2 tennis courts used by the Mt Moriac Tennis Club and an Equestrian Centre which is home to the Barwon Valley Pony Club. There is also a small playground situated close to the netball and tennis courts.

To a lesser extent, the Modewarre Reserve also partly serves the needs of Moriac, located about 5km from the township. This reserve is equipped with the Modewarre Memorial Hall, Bluestone School Building, cricket oval and 2 tennis courts (for social tennis only). The Modewarre Hall was built in the 1920’s and continues to be popular today with regular social events, classes, workshops and meetings. The Modewarre Scouts operate from this venue and service over 75 families in the district. This ageing building requires upgrading to continue to meet a range of community needs.

Table 23 and Fig 19 indicate the key leisure and recreation facilities in the Moriac area.
<table>
<thead>
<tr>
<th>Type</th>
<th>Facilities</th>
</tr>
</thead>
</table>
| Newling Reserve (located within the township)| • Community Centre  
• Picnic Shelter & BBQ  
• BMX Track and skate Park  
• 4 x Tennis Courts  
• Informal ball games field  
• Shared pathways  
• Public Toilet |
| Mt Moriac Reserve (about 4 km north of Township) | • Club room  
• 2 x Netball Courts  
• Sports Ground (2 ovals)  
• 2 x Tennis Courts  
• Play Ground  
• Pony Club  
• Public Toilet |
| Modewarre Reserve (5km west of Township)     | • Hall  
• Bluestone school building  
• Cricket Oval  
• Tennis Courts x 2 |
| Primary School                               | • School  
• Playground |
| Kindergarten                                 | • School  
• playground |
| Pathways                                     | • a network of foot paths |
Fig 19: Location of Community Facilities

Legend:
- PS Primary School
- Skate Park
- Community Centre
- Pre-School Centre
- Convenience Shop & Post Office
- BMX track
- Tennis Courts
**Education**

A Kindergarten operates from Clarke Court from Monday to Friday and caters for approximately 64 children. The provision of kindergarten facilities appears to be adequate.

Playgroups operate from Newling Reserve from Monday to Friday with approximately 70 children.

Moriac is served by one State primary school with 205 pupils enrolled for the 2009 school year. The school facilities include portable buildings and a playground area. There is a need for refurbishment of the current school buildings which mostly operates from portable buildings.

**Pathways**

A network of pathways currently exists in Moriac township along some road and park reserves. (refer Table 24)

<table>
<thead>
<tr>
<th>Location</th>
<th>Classification</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hendy Main Rd from Cape Otway Rd to Greenfields Dr</td>
<td>Road Reserve</td>
<td>Concrete</td>
<td>1,030 m</td>
</tr>
<tr>
<td>Cape Otway Rd from Hendy Main Rd to Lowndes Rd Track and skate Park</td>
<td>Road Reserve</td>
<td>Asphalt</td>
<td>45 m</td>
</tr>
<tr>
<td>Greenfields Dr from Hendy Main Rd to end of Greenfields Rd</td>
<td>Road Reserve</td>
<td>Concrete</td>
<td>667 m</td>
</tr>
<tr>
<td>Newling Reserve</td>
<td>Park Reserve</td>
<td>Gravel</td>
<td>159 m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sealed</td>
<td>822 m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concrete</td>
<td>109 m</td>
</tr>
</tbody>
</table>

**2.7.3 opportunities**

The opportunities for the provision of community and leisure facilities and services in Moriac have been suggested through a combination of the Visioning Forum responses and various Council plans. (any actions that have been taken to date by the Surf Coast Shire Council are also noted).

**Moriac Visioning Forum 2008**

The Moriac Visioning Forum identified a number of opportunities for the provision of community facilities including a swimming pool, bowling green, upgraded skateboard ramp, basketball/netball courts and indoor leisure facility.

Whilst there are some limitations in providing a number of these facilities (swimming pool, indoor leisure facility) due to the threshold population needed to support such facilities, the provision of some of these facilities may be feasible (eg., skateboard ramp, basketball/netball courts).

**Surf Coast Community Plan (2004)**

The Community Plan highlights the need for provision of youth facilities in Moriac. This is the only priority in terms of community infrastructure identified for Moriac, although maintenance of existing facilities is noted as needing improvement.

In terms of youth priorities, Surf Coast Shire Council has recently commenced a youth program which is aimed at increasing the involvement of young people in planning and running youth events, and which will develop a Youth Strategy.
**Surf Coast Early Years Plan – 2009-2013**

The Surf Coast Early Years Plan provides a strategic framework for council action in relation to the education, care and health of young children living in the municipality. It focuses on three outcomes:

- Develop our children.
- Integrate our services.
- Involve our families.

A specific action in relation to Moriac is to develop a Moriac Hub Plan to include:

- The establishment of satellite hub in Moriac Pre-school or primary school.
- Investigate local family day care and kindergarten options including in-venue centre and kindergarten extended hours.

**Surf Coast Shire Recreation Strategy (2009)**

A draft Surf Coast Shire Recreation Strategy was prepared during September 2009 to help guide the strategic and operational priorities for Council's Recreation, Youth and Cultural Services team. It is acknowledged that the Shire already has a number of existing plans and strategies that provide direction on recreation facility and infrastructure requirements, hence this project has maintained a strategic focus which will guide operational priorities, officer work plans, recreation polices and improved processes.

This strategy provides a set of recommendations including:

- Undertake a 'Place Based Assessment' of recreation infrastructure needs to determine overall priorities for each community.
- Develop a policy to guide Council's role and level of support available to assist local communities in establishing 'Community Gardens and Men's Shed' facilities, including facilitating partnerships with other agencies/groups in order to secure appropriate land where suitable Council land may not be available.

The outcomes of a workshop session held in Moriac as part of the preparation of the strategy included the following comments:

- The Moriac Hall is heavily used, therefore it is difficult to start new programs or activities. The Hall is almost at capacity. Other hall/room options may include the Church, School or Modewarre Hall.
- The community recognises that it is a rural township and does not expect to have all facilities provided locally.
- Walking paths are very good, although some require maintenance.
- The public art/sculptures are valued by the community.
- Council has been very responsive to community requests and generally very supportive.
- Parks maintenance is very good.

**Surf Coast Open Space Strategy (2004)**

The Surf Coast Open Space Strategy ‘assesses the adequacy of existing open space, make recommendations for improvements, set guidelines for improved access and future provision, provide for protection of natural and landscape values and promote community involvement’.

The Open Space Strategy was adopted by Council in 2004. Existing open space in Moriac is described as substantial but not in close proximity to each with the Mt Moriac reserve being located about 5 km from the Moriac urban area.

Specific actions for the Moriac area are listed in Table 25 along with an update on the current status of each recommendation.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>General upgrade and improvement in quality and maintenance of open space and community spaces. Eg Signage, landscaping, public art, paths etc as per guidelines contained in OS Strategy</td>
<td>Public art, playground, pathway construction, tennis court upgrade, picnic shelter and BBQ facilities provided</td>
</tr>
<tr>
<td>Implementation of Newling Reserve Masterplan.</td>
<td>As above</td>
</tr>
<tr>
<td>Moriac &amp; Mt Moriac. Impacts of major active open Strategies to ameliorate the tyranny of distance</td>
<td></td>
</tr>
</tbody>
</table>

Develop strategy for addressing ageing and under utilised tennis infrastructure at Modewarre, Gnarwarre, Mt Moriac, Freshwater Creek, Buckley, Mirnee, Connewarre and Bambra.

Hard assets management program strategy prepared. Additional passive recreation at Modewarre oval has been provided where Mt Moriac is at capacity.

### Newling Reserve Masterplan

The Newling Reserve Masterplan was prepared in May 2000 and includes a plan of works to be implemented over a ten year period and prioritised by an advisory committee for the reserve. These include:

- A picnic Lawn
- A ball game lawn
- A BMX track
- Extensive landscaping
- Children’s play area
- Formalising existing car park
- Realignment of reserve entry
- Adventure playground
- Pedestrian links to future wetlands area
- Upgrading existing junior playground next to Kindergarten

About 80% of works included in the masterplan have currently been completed and the plan will need to be revisited within a couple of years time to provide new priorities.

Projects still to be completed from the masterplan are:

- Half court basketball/netball area still to be done
- Red gum planting and native grassland planting still to be done
- Stone retaining wall at east end of tennis courts still to be done
- Car parking areas to be more formalised
- Seal entrance road and car parks
- Upgrade existing playground near Kindergarten (to be done May 2009)

### Mt Moriac Reserve Masterplan

The Mt Moriac Reserve Masterplan was prepared in May 2000 and includes a plan of works to be implemented over a ten year period and prioritised by an advisory committee for the reserve. These include:

- An upgrade of the main oval
- An upgrade to the cricket oval
- Additional landscaping works
- Improvements to the tennis and netball areas
- Formalising car parks
- An upgrade of playground
- Improvements to the Pony Club entry
- Additional facilities at the Pony Club

Projects still to be completed from the masterplan include:

- Barwon Valley Pony Club to have some fencing and surface treatments done
- Car parking to be formalised and controlled – to service football, cricket, netball and tennis areas
- Playground to be upgraded
- Netball change room to be constructed
- BBQ / social area to be done
- Pathway circuit around tennis, netball and main oval to be done
- Public toilet upgrade and additional new public toilet block to be provided

### Surf Coast Pathways Strategy 2006

Council prepared a pathways strategy in 2006 to inform its 10 year capital works program.
The implementation of the Pathways Strategy program items (refer to Table 12 - Pathway strategy works program for Moriac) have been progressing based on Shire wide priorities.

The next priority items identified for implementation in the Pathway Strategy are, firstly, the Newling Reserve link from the end of car park near Skate park to Hendy Main Rd, and secondly, Moriac Creek Trail from Newling Reserve to Hendy Main Rd.

It is envisaged that the pathway strategy program will be re-visited in a couple of years time to ascertain shire wide priorities for the outstanding items.

Education

A recent refurbishment of the Kindergarten has recently been completed following a grant from the State Government.

Moriac Primary School in currently going through the process to have a new School built and it is expected that funding will be included in the 2010 – 2011 State Government budget.

In a separate development, as part of the Federal Government’s economic stimulus package, two significant School projects totalling over $2.1 million are set to occur during this year comprising of a library/learning resource building and a major upgrade to the school’s amphitheatre. As a result of these projects it is likely the School will remain on the existing site.

It is not envisaged to expand the primary school’s current boundary, however, depending on population growth, provision may have to be made for longer term needs of the school during the next review of this structure plan.
ACKNOWLEDGMENTS

We wish to thank the following who provided advice that greatly assisted the preparation of the Structure Plan:

- **Members of the ‘Community Reference Group’**
  - Colin Findlay
  - Anna Hayward
  - Andrew Mac Donald
  - Michael Meeson
  - Michael Aberton
  - Glen Newling
  - Steve Durkin
  - Carolyn McKenzie
  - Geoffrey Pfitzner

- **Members of the ‘Project Steering Group’**:
  - Mark Harwood – SCS Strategic Planning Coordinator
  - Cletus Kweifio-Okai – SCS Strategic Planner (Project Manager)
  - Richard Bain – SCS Special Project Co-ordinator
  - Wendy Nuttal – SCS Aged & Disability Services Coordinator
  - Jackie Welsh – SCS Children’s Services Coordinator
  - Leanne Lucas – SCS Open Space Planning Coordinator
  - Chad Foulkes – SCS Community Planning and Development Co-ordinator
  - Ian Waugh – SCS Recreation, Youth and Cultural Services Co-ordinator