

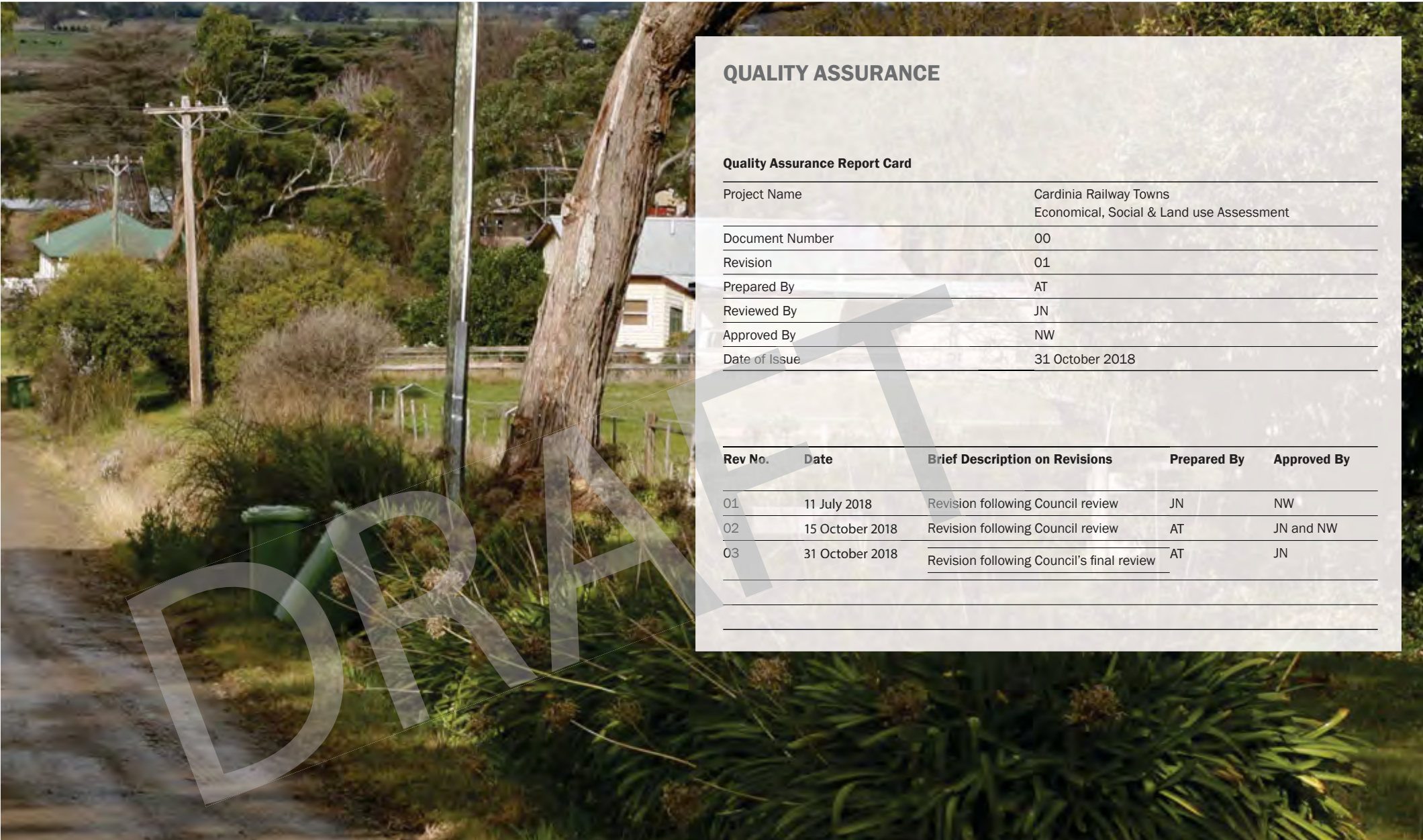
Cardinia Railway Towns Economic, Social & Land use Assessment

Nar Nar Goon, Tynong, Garfield & Bunyip

Prepared by Tract Consultants
For Cardinia Shire Council
0317- 0377

Tract Consultants
Level 6, 6 Riverside Quay
Southbank, VIC 3006
Phone: (03) 9429 6133
www.tract.com.au





QUALITY ASSURANCE

Quality Assurance Report Card

Project Name	Cardinia Railway Towns Economical, Social & Land use Assessment
Document Number	00
Revision	01
Prepared By	AT
Reviewed By	JN
Approved By	NW
Date of Issue	31 October 2018

Rev No.	Date	Brief Description on Revisions	Prepared By	Approved By
01	11 July 2018	Revision following Council review	JN	NW
02	15 October 2018	Revision following Council review	AT	JN and NW
03	31 October 2018	Revision following Council's final review	AT	JN



CONTENTS

01	Executive Summary	9	04	Principles for Growth	32	11	Garfield	61
1.1	Overview	9	4.1	Principle 1: Separate and distinct towns	32	11.1	Summary	61
02	The Railway Towns	11	4.2	Principle 2: Retaining the rural character	32	11.2	Current Planning Controls	64
2.1	What are the Railways Towns?	11	4.3	Principle 3: Strong Green Wedge Buffers	33	11.3	Accessibility	66
2.2	Where are the Railway Towns?	11	4.4	Principle 4: Connectivity and unity	33	11.4	Community Services and Facilities	67
2.3	The role of the railway	13	4.6	Principle 6: Planning for growth and size of towns	33	12	Bunyip	71
2.4	Pre-Settlement History	13	05	Implications of Pakenham and Pakenham East	35	12.1	Summary	71
2.5	Post-Settlement History	13	06	Servicing	36	12.2	Current Planning Controls	73
2.6	Agriculture and Industry	14	07	Economic Opportunities	38	12.3	Accessibility	75
2.7	How are the towns evolving?	14	3.13	Historic Towns with a boutique attraction	38	12.4	Community Services and Facilities	75
03	Policy Context	15	3.14	Outdoor Recreation	38	13	Summary	78
3.1	Overview	15	3.15	Pakenham Racing Club Precinct	38	14	Implementation Strategy	79
3.2	Urban Growth Boundary	17	08	Community Infrastructure	40			
3.3	Planning Policies for Metropolitan Melbourne (1971)	18	09	Nar Nar Goon	43			
3.4	Plan Melbourne 2017 -2050	18	9.1	Summary	43			
3.5	The South-Eastern Growth Area Technical Report (1989)	18	9.2	Current Planning Controls	47			
3.6	Gippsland Regional Growth Plan (2017)	20	9.3	Accessibility	49			
3.7	Pakenham East Precinct Structure Plan	20	9.4	Community Services and Facilities	50			
3.8	Pakenham Structure Plan	20	10	Tynong	53			
3.9	Regional transport infrastructure upgrades	20	10.1	Summary	53			
3.10	Planning Policy Framework	21	10.2	Current Planning Controls	54			
3.11	Local Planning Policy Framework	24	10.3	Accessibility	56			
3.12	Other Documents	28	10.4	Community Services and Facilities	57			
3.12.1	Cardinia Western Port Green Wedge Management Plan	28						
3.12.2	Youth Policy and Strategy Background Paper	28						
3.12.3	Bunyip Township Strategy (2009)	28						
3.12.4	Garfield Township Strategy (2002)	30						



FIGURES

Fig. 1	Metropolitan Context Plan	11	Fig. 33	Employment Profile Garfield (SGS Economics, 2017)	63
Fig. 2	Regional Context Plan	12	Fig. 34	Zoning Map	65
Fig. 3	Policy Progression	15	Fig. 35	Overlay Map	65
Fig. 4	Melbourne Metro Zone map	17	Fig. 36	Environmental Map	65
Fig. 5	Concept - Linear	19	Fig. 37	Accessibility Map	66
Fig. 6	Concept - Cellular	19	Fig. 38	Services Map	66
Fig. 7	Concept - New Settlement	19	Fig. 39	Community Infrastructure Map	67
Fig. 8	Concept - Containment	19	Fig. 40	Population Growth Bunyip	71
Fig. 9	Land Capability for Agriculture (Extract from Clause 21.04-2)	26	Fig. 41	Change in Age Structure Bunyip	71
Fig. 10	Extract from Figure 7 at Clause 21.07-7	28	Fig. 42	Employment Profile Bunyip (SGS Economics)	72
Fig. 11	Extract from Figure 17 at Clause 21.04-6	29	Fig. 43	Zoning Map	74
Fig. 12	Garfield Township Strategy (2002)	30	Fig. 44	Overlay Map	74
Fig. 13	Nar Nar Goon Population (SGS Economics, 2017)	43	Fig. 45	Environmental Map	74
Fig. 14	Change in Age Structure Nar Nar Goon- Tynong, 2011 - 2016 (Profile ID)	45	Fig. 46	Accessibility Map	75
Fig. 15	Employment Profile Nar Nar Goon (SGS Economics)	46	Fig. 47	Services Map	75
Fig. 16	Study Area - Excluded Portion of Nar Nar Goon	46	Fig. 48	Community Infrastructure Map	76
Fig. 17	Zoning Map	48			
Fig. 18	Overlay Map	48			
Fig. 19	Environmental Map	48			
Fig. 20	Accessibility Map	49			
Fig. 21	Services Map	49			
Fig. 22	Community Infrastructure Map	50			
Fig. 23	Population change for Tynong (SGS Economics, 2017)	53			
Fig. 24	Employment Profile Tynong (Source: SGS Economics, 2017)	54			
Fig. 25	Zoning Map	55			
Fig. 26	Overlay Map	55			
Fig. 27	Environmental Map	55			
Fig. 28	Accessibility Map	56			
Fig. 29	Services Map	56			
Fig. 30	Community Infrastructure Map	57			
Fig. 31	Population Change for Garfield (Source: SGS Economics, 2017)	61			
Fig. 32	Change in Age Structure, Garfield (Profile ID)	62			

TABLES

Table. 1	Existing Township Populations (SGS Economics)	14
Table. 2	Projected population forecasts (SGS Economics)	14
Table. 3	Extract from Table 1 at Clause 22.05-3	27
Table. 4	Cardinia Railway Towns – A Model of Community and Health Infrastructure	41
Table. 5	Nar Nar Goon Community Services and Facilities	50
Table. 6	Nar Nar Goon Summary Table	51
Table. 7	Tynong Community Services and Facilities	57
Table. 8	Tynong Summary Table	59
Table. 9	Garfield Community Services and Facilities	67
Table. 10	Garfield Summary Table	69
Table. 11	Bunyip Community Facilities	76
Table. 12	Bunyip Summary Table	77
Table. 13	Next Steps Table	79



01 Executive Summary

1.1 Overview

This policy and planning review encompasses an economic, social and land use assessment of Cardinia Shire Council's four Railway Towns, being Nar Nar Goon, Tynong, Garfield and Bunyip.

The aim of this study is to identify the following:

- Role and function of each of the towns;
- The implications of the development of Pakenham & Pakenham East for these towns;
- The relationship between the towns and what role they play in supporting one another;
- Analysis of the demand and supply for retail, commercial, industrial and residential development within the towns; and
- Provide recommendations to guide the future development of these towns.

This assessment provides Council the necessary analysis to pursue updated policies for the towns to ensure each town achieves a sustainable size and appropriate mix of appropriate township attributes into the future.

This assessment also provides a critical analysis of historical planning policy which has guided growth within the towns over time and which continues to influence the decision making process.

It provides an individual snapshot of each town in terms of the population and demographics including forecasts to 2051, land use controls, accessibility and available community services and facilities.

The assessment then seeks to analyse servicing limitations across the towns whilst also highlighting potential economic opportunities such as outdoor recreation, the Pakenham Racing Club and boutique attractions associated with the history of the towns. Finally, the report provides low and ultimate growth scenarios for each town which will assist in growing the towns to a sustainable size whilst maintaining the green wedges between the towns and to the Princes Highway to the north. An implementation plan is also provided to guide Council's next steps to achieve a sustainable level of growth.

Summary

This analysis has found that a range of growth options are available within each town (low and ultimate) but that an ultimate growth option should be pursued for each town (subject to further servicing investigations) and UGB's applied to both Nar Nar Goon and Tynong.

This is on the basis that each town has the essential building blocks, such as access to a train station, transport infrastructure including access to the Princes Hwy and other local infrastructure, to accommodate an increased population. As such, the towns have an essential building blocks, to create a higher density town and community. This can be strengthened by growth of both "sets" of towns (Nar Nar Goon/Tynong AND Garfield/Bunyip) to approximately 10,000 households each. This is considered to be the size required to achieve a critical mass to support local community and health infrastructure and to enable long-term sustainability of the towns.

The process so far

This analysis marks a milestone for Cardinia and the culmination of significant work by many stakeholders and consultants on the project. The key stages of the project are summarised below.



Project Team

- **TRACT** Town Planning and Social Planning
- **LD Eng** Service Engineering
- **SGS** Economic

"The success or failure of a planning scheme is ultimately measured by how it fulfils human needs."

How does the plan affect the individual? Within the reasonable restraint of not harming others or acting against the general public interest can he do the things he wants to do? Can he find a piece of land with essential services on which to put a house?

Can he get a job when he needs one; move easily about his city in safety and without hindrance; find shops nearby which offer him a choice of goods? Is there a school close at hand for his children and opportunities to make friends with his neighbours?

Are places of entertainment and recreation within reasonable distance; some bushland and rivers and the sea where he can breathe fresh air or laze in the sun? Are there places in the city to provide a focus that gives him a sense of pride, and belonging, a feeling of history?

Modern cities should be places of infinite variety and be capable of exciting the human spirit, not every day perhaps but at least some of the time"

- 1971 Planning Policies for the Melbourne Metropolitan Region (Pg. 15)



02 The Railway Towns

2.1 What are the Railway Towns?

The four towns of Nar Nar Goon, Tynong, Garfield and Bunyip (the Railway Towns) provide a range of activities that contribute to the economic vitality of the rural areas for Cardinia Shire. In particular, they provide residents in these areas with access to a range of retail, community, civic, health and entertainment facilities and services, whilst also providing business and employment opportunities.

The towns, each formed following construction of the Gippsland rail line are situated in the foothills to the Dandenong Ranges and are inherently linked to the future growth of Melbourne, the south east region and the Gippsland corridor.

Two of the railway towns, Bunyip and Garfield have existing township Strategies and an Urban Growth Boundary (UGB), however Tynong and Nar Nar Goon do not have any strategic direction for their current or future development and are without a UGB.

2.2 Where are the Railway Towns?

Cardinia Shire is a municipality at Greater Melbourne's metropolitan-regional interface. It has an area of 1,280 square kilometres and stretches from the Yarra Ranges in the north, Westernport Bay in the south, the regional shires of Baw Baw and Bass Coast in the east and south-east, and the urban growth and green wedge areas of Casey to the west and south-west. The geographic context of the railway towns plays a significant role in how they are affected by various strategic planning policy mechanisms in Victoria, notably the Urban Growth Boundary (UGB) and Green Wedge Zone (GWZ).

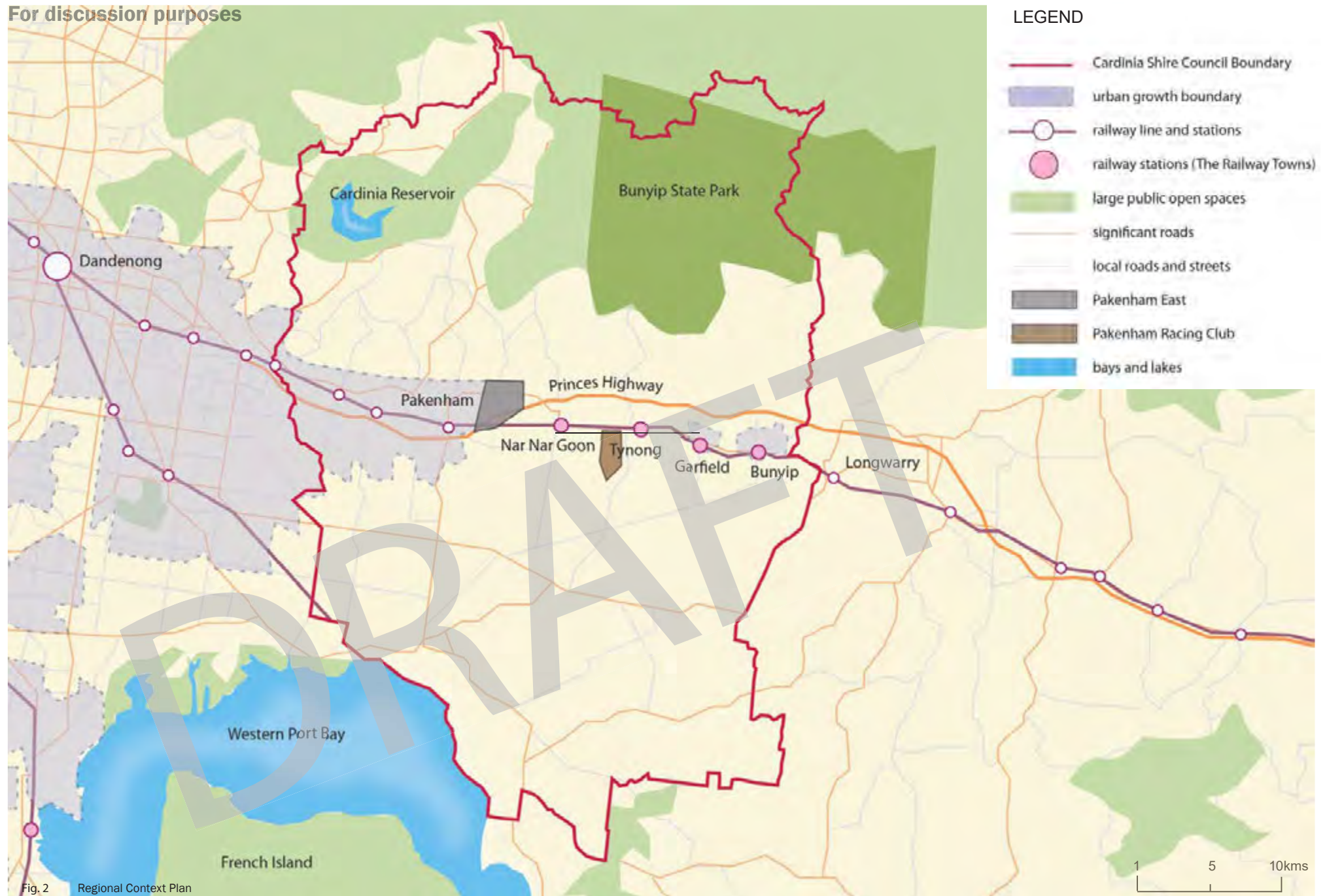
The Railway Towns are situated within the foothills to the Dandenong Ranges, within the Western Port Green Wedge and are of high biodiversity value with a number of diverse habitat corridors. The vegetation supports the ecological processes and biodiversity of this area by forming habitat corridors within a complex network of bio-link wildlife corridors.

Located along a 15 kilometre stretch of the Gippsland Rail Line, the towns are situated between Pakenham to the west and Longwarry to the east. The towns are geographically linked in pairs being Nar Nar Goon to Tynong (4km), and Garfield to Bunyip (4.6km). Since the construction of the Princes Hwy (to the north) the towns have been largely bypassed by most traffic. Locally the towns are linked via the Nar Nar Goon – Longwarry Road which follows the southern side of the rail line.



Fig. 1 Metropolitan Context Plan

For discussion purposes



3.1 The role of the railway

In recent times, the role of the railway line has altered from that experienced through the 1900s. In 1983, VicRail was disbanded and regional lines were placed under the jurisdiction of V/Line, a government-owned corporation which operates passenger train and coach services across Victoria today. Since this time, the electrification of rail lines across Victoria and the introduction of Vlocity diesel locomotives have shortened travel times and increased services. In 2004, the Gippsland line was extended from Sale to Bairnsdale after being cut back in 1993. Today, trains operate between Melbourne and Traralgon with express services stopping at Garfield.

Victoria today has a highly urbanised population with higher proportions of people locating in Melbourne than the rest of the State. Coupled with rising house prices within the Metropolitan Urban Growth Boundary and the growth of outer-eastern suburbs, the rail line is increasingly viewed as a viable commuter option for those willing to relocate to the urban fringe and peri-urban areas.

The population growth centred on these regional centres and in townships beyond Melbourne's green wedge areas has increased the pressure on V/Line to provide frequent and fast rail services to Melbourne. The Gippsland line has been affected by this growth and after Pakenham, services share infrastructure with suburban railway services limiting the capacity of the line to provide a fast and frequent connection to Melbourne.

Most recently, the Victorian Government has invested \$435 million into the Gippsland Line Upgrade which will include duplication of track and a new platform at Bunyip.

3.2 Pre-Settlement History

The Boon Wurrung people are the Indigenous Australians of the Kulin nation who occupy South-Central Victoria. This encompasses a region from the Werribee River to Wilson's Promontory from the coast inland north to the Dandenong Ranges and as far as Warragul.

Prior to European settlement, it is generally considered that six separate clans existed. By 1839, the Boon wurrung had been reduced to a population of 83 people. Following constant displacement by the Government over a period of approximately 70 years, in 1924 most remaining Boon wurrung people were moved from stations in West Gippsland, to Lake Tyers in Gippsland¹.

The Boon wurrung played a large part in the ecology of the region. The name Bunyip originates from the Bunurong word Bunyeep which is a spiritual being believed to live near water and prey on humans who come too near. Similarly, Tynong is thought to be an Aboriginal word meaning many fish, relating to its location on the edge of the former Koo Wee Rup swamp; and Nar Nar Goon is understood to be named for the Aboriginal expression meaning native bear.

3.3 Post-Settlement History

In order to understand the functionality, and role of each of the towns, it is essential to recognise their inception as settlements within the wider Gippsland region.

The settlement history of the region has been based on three main events which occurred during the mid-1800s. These are:

- The continued growth of Melbourne as a settlement;
- The exploration of and eventual settlement of East Gippsland and the alpine region expanding from Omeo (via southern New South Wales) through to the East Gippsland coast and further west to Morwell; and
- The establishment of a sea port at Port Albert, South Gippsland in 1841.

There was little-to-no access directly between Melbourne and Morwell for many years (except by sea via Port Albert) due to the presence of the infamous Koo Wee Rup and Moe Swamps and the heavily-timbered native forests which were present within the region². It took approximately 30 years for early settlers to establish a coach route between Melbourne and Sale. In 1848, the journey could be expected to take two weeks, whilst by the mid-1870s this was reduced to a single day³. Small towns, such as Tonimbuk and Robin Hood were created along the route to provide services to wary travellers. This was encouraged by the formation of Cobb & Co in 1853.

Simultaneously, by 1864 the telegraph line had been completed between Melbourne and Sale, opening the following year. The now Princes Highway is believed to follow this route. By 1865, surveyors were exploring West Gippsland for a suitable route for a railway line. The preferred route skirted south of the Moe Swamp.

In 1873, the Parliament of Victoria approved construction of a rail line from Oakleigh to Sale. By 1877, the Sale to Moe section of the rail line was completed with the entire line officially opening in 1878. The Gippsland Rail Line is situated south of the original Cobb & Co coach track and has since been considered the "death knell to settlements along the Cobb & Co route" with many towns disappearing over time. After some lobbying, train stations were created at Nar Nar Goon, Tynong, Bunyip, and Garfield over time.

It could be said that the Princes Highway duplication north of the Railway Towns in 1987⁴ cemented the four towns as true railway towns, bypassed by everyday traffic.

In the years following the opening of the rail line, the towns have developed organically and have been shaped by several factors:

- The linear nature of the railway and its divisional role;
- The location of floodplains and suitable developable / agricultural land; and
- Topography, vistas and views.

² Morgan, P. 1997. *The Settling of Gippsland*. 1st ed. Leongatha: Gippsland Municipalities Association.
³ Barraclough, L. and Squires, D.. 2003. *Steps in Time: A Gippsland Chronology to 1889*. [ONLINE] Available at: <http://homepages.rootsweb.ancestry.com/~surreal/AVG/Resources/timeline.html>. [Accessed 6 September 2017].

¹ Clark, I. D., 2015. *A Peep at the Blacks: A History of Tourism at Coranderrk Aboriginal Station, 1863-1924*. 1st ed. Online: De Gruyter.

⁴ Road Construction Authority Victoria. 1987. *Annual Report 1986-1987*. 1st ed. Kew, Victoria: Road Construction Authority.

3.4 Agriculture and Industry

The Railway Towns were founded in association with the timber industry which thrived during construction of the railway line and for many years thereafter. Timber sleepers used to construct the Gippsland Rail Line came from the milling of local native timbers and towns such as Bunyip and Garfield grew in population thanks to the work provided by the timber industry, in particular the demand for firewood in the expanding city of Melbourne.

In the late 1800s and early 1900s, the population in the region was such that in addition to existing hotels, general stores, schools, churches, and an increasing number of dwellings were established. Around this time, drainage work began on the large swampy land south-west of Bunyip and Garfield, and in conjunction with past tree removal, these provided large tracts of open land suitable for farming. The agricultural industry expanded as the timber industry declined and included dairy farming, potato farming and productive orchards among other ventures. The agricultural industry continues to thrive to this day and is protected through its status as part of Melbourne's easternmost 'green wedge'.

3.5 How are the towns evolving?

Collectively across the towns, population grew from around 4,500 in 1996 to around 5,500 in 2011 and has since stabilised at this level from 2011. Over 1996 to 2016 population grew at a compound annual rate of 1.1 per cent.

In metropolitan Melbourne, over the same period, population grew at an average annual growth rate of 1.7 per cent and in regional Victoria, the rate was 0.7 per cent. This indicates that population growth in the railway towns is reflective of their peri urban location with a growth rate somewhere between metropolitan Melbourne and regional Victoria⁵.

⁵ SGS Economics and Planning, Cardinia Railway Towns - Economic Profile, September 2017

	1996	2001	2006	2011	2016
Tynong	626	696	716	765	747
Nar Nar Goon	849	944	972	1038	1013
Garfield	1100	1223	1258	1344	1413
Bunyip	1920	2135	2196	2346	2408
Population Total	4495	4998	5143	5493	5582

Table. 1 Existing Township Populations (SGS Economics)

Population	2016	2021	2026	2031	2036	2041	2046	2051
Tynong	747	715	688	670	668	806	919	1002
Nar Nar Goon	1013	969	933	908	905	1093	1247	1358
Garfield	1413	1431	1404	1407	1472	1819	2075	2261
Bunyip	2408	2382	2371	2431	2581	3184	3639	3939
Population Total	5582	5498	5396	5415	5626	6901	7881	8590

Table. 2 Projected population forecasts (SGS Economics)

The populations of Nar Nar Goon, Tynong and Garfield can be classified as 'small towns' as they vary in size between 500 and 1500 people.

Over the last 150 years, the proportion of people living in small towns has dramatically decreased, resulting in some small towns disappearing completely while others have shrunk as population has clustered around regional centres. Whilst growth between 1996 and 2016 has been modest, the towns are not following the broad trend of decline experienced by many other small towns.

This is likely due to the proximity of the towns to metropolitan Melbourne which makes these areas attractive as they provide the facilities, services and proximity to employment opportunities in Melbourne whilst enjoying the benefits of a small town environment.

Population is set to grow modestly in the towns to 2036 after which growth is expected to pick up. Across the towns, from 2016 to 2051, population is expected to grow at a rate of 1.1 per cent a year (CAGR). This compares with a much higher growth rate across Cardinia of 2.1 per cent over the same period, reflecting the significant growth anticipated within the urban growth boundary.

Consistent with recent trends, the population level in the towns is expected to remain relatively stable over the next 25 years. However, from 2036 there is likely to be a ramp up in population driven by changing demographics. Additionally, as these forecasts are based on VIF there is an implicit assumption that in the coming decades Melbourne will become increasingly populous and these towns will become even more peri-urban in nature.

04 Policy Context

4.1 Overview

In 1873, the Parliament of Victoria approved construction of a rail line from Oakleigh to Sale. By 1877, the Sale to Moe section of the rail line was completed with the entire line officially opening in 1878. As such, the Railway Towns were essentially founded off the back of the timber industry which thrived during construction of the railway line and for many years thereafter. Timber sleepers used to construct the Gippsland Rail Line came from the milling of local native timbers and towns such as Bunyip and Garfield grew in population thanks to the work provided by the timber industry, in particular the demand for firewood in the expanding city of Melbourne.

After some lobbying, train stations were created at Nar Nar Goon, Tynong, Bunyip, and Garfield over time. The Princes Highway duplication north of the Railway Towns in 1987 cemented the four towns as true railway towns, bypassed by everyday traffic.

In the late 1800s and early 1900s, the population in the region was such that in addition to existing hotels, general stores, schools, and churches, an increasing number of dwellings were established. Around this time, drainage work began on the large swampy land south-west of Bunyip and Garfield, and in conjunction with past tree removal, these provided large tracts of open land suitable for farming. The agricultural industry expanded as the timber industry declined and included dairy farming, potato farming and productive orchards among other ventures. The agricultural industry continues to thrive to this day and is protected through its status as part of Melbourne's easternmost 'green wedge'.

In the years following the opening of the rail line, the towns have developed organically and have been shaped by several factors:

- The linear nature of the railway and its divisional role.
- The location of floodplains and suitable developable / agricultural land.
- Topography, vistas and views.

These towns were part of the Pakenham Shire outside the original 1971 plan for Metropolitan Melbourne. However subsequently the whole municipality became part of the Metropolitan area and the towns are now considered "peri urban" settlements within the context of Plan Melbourne 2017-2050.

The Western Port is an internationally recognised environment due to its established agriculture industry, rich soils, access to water and extensive transportation networks. Combined, these features create extensive economic potential for the region.

Over the years, there has been extensive policy progression and commentary published with respect to the western port area and the railway towns. Refer to **Figure 3** to the right. Most recently, Councils future plans for the green wedge have been communicated via the Cardinia Western Port Green Wedge Management Plan and the subsequent recommendation by Planning Panels that Council "... seek advice...on the merits of preparing township strategies...that at least provides guidance for infill development on existing residential land".

In addition, the existence of significant strategic planning policy reinforces the Victorian Governments commitment to protect Victoria's green wedge land and is a unique challenge for ensuring future growth of the Railway Towns.



Fig. 3 Policy Progression



4.2 Urban Growth Boundary

As a consequence of its position at this interface, Cardinia Shire includes areas within Melbourne's UGB and is partially subject to the metropolitan planning policies and frameworks (including Plan Melbourne). For the Railway Towns, the Melbourne UGB ends east of Pakenham East with Garfield and Bunyip included within the UGB as satellite areas. Nar Nar Goon and Tynong, despite having a closer proximity to the metropolitan area, do not currently have a UGB.

The 2011 Logical Inclusions Advisory Committee report did not provide direction for the change of boundary with regards to Nar Nar Goon and Tynong. The conclusion to include Garfield and Bunyip was made based upon the following decision criteria:

- Transport -Access to urban transport and arterial road systems
- Local connectivity to existing areas- areas included within the UGB should be able to connect to existing services and employment.
- Sustainable neighbourhoods.-Specifies that between 2,500 and 3,000 households are required to achieve a critical mass of population to support local services such as a community hub, local shopping centre and state primary school. The inclusion of areas where this critical mass cannot be achieved should be avoided.
- Utilities - Capacity of new urban areas to be serviced by utilities (water, sewerage, electricity, gas and telecommunications) at a reasonable cost.

Other physical considerations informing the placement of the UGB include alignment of roads, waterways, ridgelines, parks, title boundaries and the presence (and constraints) posed by existing low density and rural residential areas. Additionally, in the context of the Railway Towns, the Green Wedge Zone has influenced decisions regarding the inclusion of these areas within the UGB.

The Green Wedge Zone (GWZ) surrounds all four of the Railway Towns settlement areas (within the UGB or not) and as a consequence, provides a statutory limitation to the capacity of the townships to expand whilst maintaining separation between them.

The Logical Inclusions Advisory Committee considered urban growth into the GWZ as facing considerable constraints stemming from existing agricultural activities and soil capability, biodiversity, extractive industries, drainage corridors, heritage concerns and landscape features.

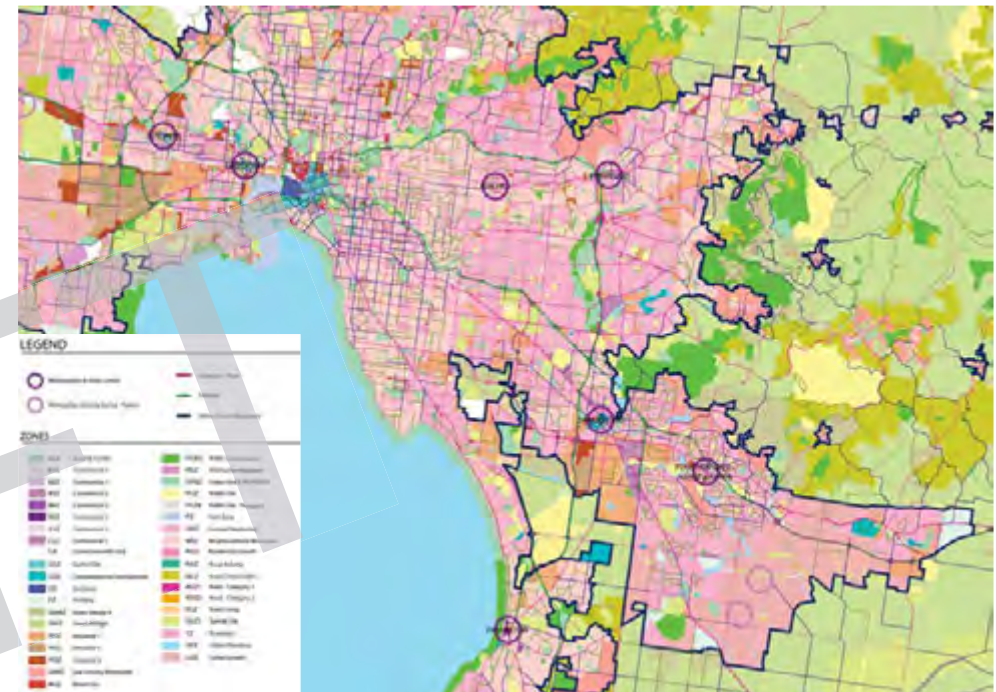


Fig. 4 Melbourne Metro Zone map

4.3 Planning Policies for Metropolitan Melbourne (1971)

Planning Policies for Metropolitan Melbourne introduced the green wedge principles to metropolitan planning including the designation of large corridors of Melbourne's south-east as the Westernport Green Wedge in which the railway towns are within or surrounded by. This 1971 plan (for the area east of Toomuc Creek) plan specified that:

"Land use, resources, terrain, vegetation and habitat vary extensively throughout the non-urban areas. It is intended that the basic attributes and resources contained within the areas shall be preserved to a maximum degree, and that environment management policies shall be specifically oriented towards this objective."

The principles introduced by this strategy have been continued throughout, following metropolitan strategies including most recently *Plan Melbourne*.

4.4 Plan Melbourne 2017 -2050

Plan Melbourne and the eight Regional Growth Plans guide Melbourne and Victoria's future growth and infrastructure development. Plan Melbourne provides strategic guidance to the development of urban land within the Urban Growth Boundary and does not endorse urban growth beyond. In the context of the railway towns only Bunyip and Garfield are subject to the strategy's urban growth directions. Direction 4.5 of Plan Melbourne specifies the following with regards to green wedge land:

"Future growth in the green wedges and peri-urban areas will be managed to protect productive land, strategic economic resources, heritage and biodiversity assets, while accommodating additional housing and employment in established towns in the outer peri-urban areas that have the capacity for growth. Many towns in green wedges have limited growth potential."

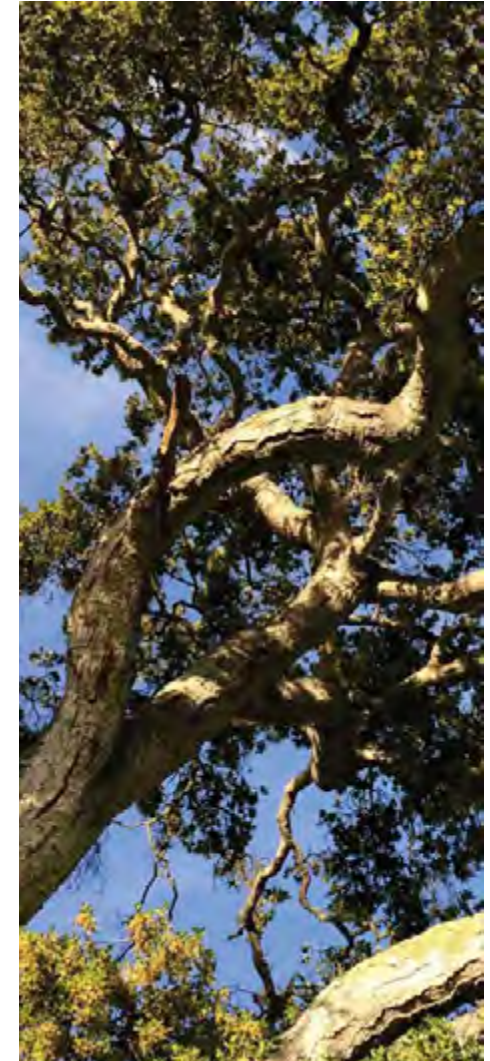
Importantly, one of the key concepts of Plan Melbourne is the idea of 20-minute neighbourhoods (Principle 5) which seeks to create accessible, safe and attractive local areas where people can access most of their everyday needs within a 20 minute walk, cycle or local public transport trip to make Melbourne healthier and more inclusive. Furthermore one of the key factors to underpin this principle is the implementation of a permanent urban growth boundary to create a more consolidated sustainable city. The implementation of urban growth boundaries sends a clear message about the long-term development priorities for Melbourne and Victoria. Future growth of Nar Nar Goon or Tynong is presently limited through Direction 4.5 of Plan Melbourne and its corresponding statutory provisions within the Cardinia Planning Scheme. As a consequence the railway towns sit at the nexus of various strategic planning policies and technicalities and as a result are inconsistently subject to diverging strategic planning frameworks.

4.5 The South-Eastern Growth Area Technical Report (1989)

In 1987, the metropolitan strategy *Shaping Melbourne's Future* identified three Priority Growth Areas for Melbourne: the Werribee corridor; Plenty corridor; and South-Eastern corridor. This designation lead to the development of the South-Eastern Growth Area Technical Report (1989) which further identified the South-Eastern Priority Growth Area as a critical element to support Melbourne's population growth into the 1990s. At this time, over one third of Melbourne's growth was expected to take place in this corridor and the Technical Report's subject area extended from Dandenong and Cranbourne in the west to the Cardinia Railway Towns in the east.

This Report sought to identify the capability of the corridor to accommodate growth of an estimated 270,000 people by 2003. The report offered four different models of urban growth in the south-east

which would have affected the Cardinia Railway Towns with varying levels of intensity. These scenarios were based on planning policy of the time, environmental conditions, and "views of local councils" to provide the growth concepts below:



• Concept 1 – Linear

This model would have resulted in an uninterrupted linear expansion of Melbourne's urban footprint from Narre Warren to Bunyip. According to Concept Plan 1 (refer to Figure 5) the pattern of growth would have been largely solid from Pakenham to Bunyip, with some non-urban settlement breaks between Nar Nar Goon and Tynong. This model would have housed an additional population in the corridor of between 250,000 and 310,000 people and would have contained a hierarchy of primary, secondary and minor activity centres (including Nar Nar Goon, Tynong, Garfield and Bunyip).

While this concept would have created a transport-centred corridor of highly accessible and well defined centres, it was identified that destinations beyond the corridor may be difficult to access. The Report identified that this model of growth would reduce the "separate" character of the townships and a high priority on urban and landscape design would have been required to reduce the impact on surrounding Green Wedge land.

This concept proposed a reliance on existing employment centres (such as Dandenong/Hallam and Central Melbourne) as well as within the existing townships between Berwick and Bunyip.

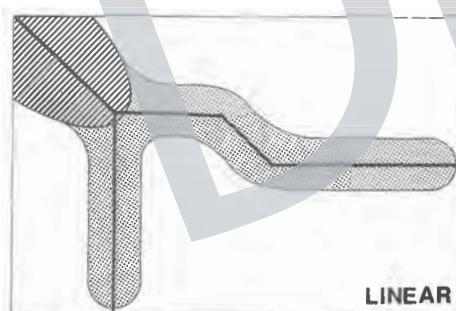


Fig. 5 Concept - Linear

• Concept 2 – Cellular

Concept 2 varied the linear pattern of growth in Concept 1 by proposing a 'cellular' pattern of urban development that would include significant enlargement of the Cardinia Railway Towns whilst maintaining distinct non-urban settlement breaks between them.

This model also included greater articulation in densities in new urban areas which would provide a transition between urban and non-urban areas and, with the settlement breaks, maintain a distinctive character between the existing townships. This concept proposed a reliance on existing employment centres (such as Dandenong/Hallam and Central Melbourne) as well as within the existing townships between Berwick and Bunyip.

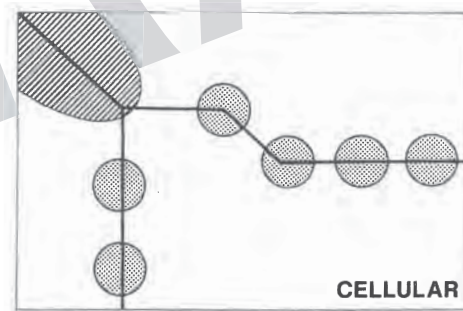


Fig. 6 Concept - Cellular

• Concept 3 – New Settlement

Unlike the first two concepts, Concept 3 proposed a new pattern of growth centred on fostering Bunyip as a major satellite activity centre of Melbourne whilst maintaining Pakenham at its (then) current size. The population of the 'city' of Bunyip would have been planned to reach 100,000. No changes were proposed for Nar Nar Goon or Officer.

This concept would have maintained significant non-urban Green Wedge areas between Berwick and Bunyip, with only moderate growth centred on Pakenham. Concept 3 also proposes a significant employment centre within the new city, decreasing its reliance on existing employment centres toward Melbourne.

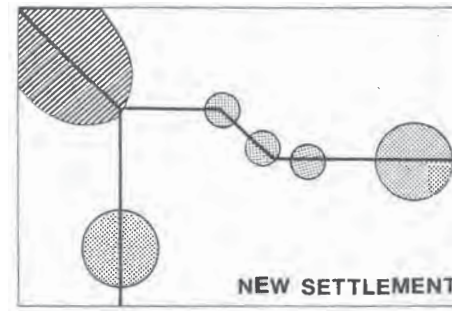


Fig. 7 Concept - New Settlement

• Concept 4 – Containment

This concept would have funnelled all development into a large arc of urban growth fanning out from Dandenong toward Pakenham (in the south-east) and Lynbrook/Cranbourne North in the south. The schematic plan for this concept suggests that the Cardinia Railway Towns would remain largely unchanged if this non-linear option (which generally radiates from Dandenong) was implemented.

The Report suggested that these concepts could be incorporated into strategic metropolitan plans by either the whole adoption of the concepts individually or by a mixture of elements of each. Since 1989, metropolitan planning policy has generally promoted a pattern of growth that resembles the urban form of Concept 1 (as far as Pakenham East) and Concept 4.

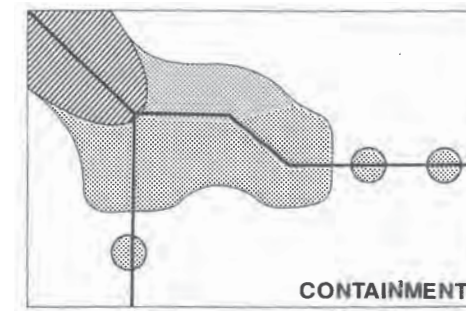


Fig. 8 Concept - Containment

4.6 Gippsland Regional Growth Plan (2017)

This plan is one of eight regional growth plans that have been developed to provide broad direction for land use and development across regional Victoria and to provide more detailed planning frameworks for key regional cities and centres. Whilst the Gippsland Regional Growth Plan does not encompass Cardinia Shire, it is relevant to consider given its application to the areas immediately adjoining the railway town environment.

In terms of agriculture, the Regional Growth Plan note that investigations by metropolitan Council's and water authorities are continuing into the feasibility of establishing an intensive agricultural area to be known as the Bunyip Food Belt and that this area could provide additional product for food processing and manufacturing facilities in Gippsland.

4.7 Pakenham East Precinct Structure Plan

The greenfield land immediately west of Nar Nar Goon will form part of the Pakenham East Precinct Structure Plan (PSP). The Pakenham East area is part of the 2012 logical inclusions to the Urban Growth Boundary and anticipated to achieve a target of 100,000 lots. Pakenham East is intended to be a self-sustaining and predominantly residential community and will be supported by an Infrastructure Contributions Plan to fund local community facilities, public open space and intersections and road networks.

More specifically, the Pakenham East PSP will support:

- One local town centre and a local convenience centre, including a key anchor store. This will most likely be a small scale supermarket, such as an IGA or express style Coles or Woolworths supermarket
- Two local sports reserves offering a variety of sports and recreation opportunities.

- Two government primary schools
- One government secondary school
- One non-government primary school
- A range of local parks and waterways within walking distance of residents.

The railway line is located a kilometre south of the PSP and subsequently does not dissect the township. The town centre and community facilities directly abut onto Princes Highway. Submissions received through the Pakenham PSP exhibition process were under review in mid 2018.

4.8 Pakenham Structure Plan

The Pakenham Town Centre is approximately four kilometres from the proposed Pakenham East Town Centre. The Pakenham Structure Plan was prepared in March 2017 by Cardinia Shire Council. The Vision for the Pakenham Structure Plan is described as follows:

'In 2035 Pakenham Activity Centre will be a prosperous and sustainable activity centre accommodating high quality new development, providing local employment and a diverse range of retail, commercial and residential options.'

Main Street will with be the heart of the activity centre with an attractive, innovative and integrated shared space where people and traffic move about in harmony. The street, public realm and open space network will be interconnected, vibrant and welcoming, used by everyone at all hours of the day.

Pakenham railway station will be a high amenity 'state-of-the-art' facility offering an efficient and reliable multi-modal service that is safe and accessible to all.

The ambiance of the Pakenham Activity Centre will inspire a strong sense of community pride where the community and visitors can shop, eat, relax, enjoy, work and live.

Pakenham currently functions as a successful town centre, with a core retail hub including:

- Full line Coles Supermarket, Big W Store, Target, several bank branches, chemist and other retailers within the Pakenham Place Shopping Centre
- Pakenham Train Station is proximate to the retail centre and accessed via the main street
- Several large recreational reserves
- Health and educational facilities, including the Monash Health Centre, childcare and kindergartens, primary and secondary schools.

4.9 Regional transport infrastructure upgrades

The railway towns corridor will be affected by various transport infrastructure projects currently underway in the region.

\$435 million upgrade to the Gippsland Line which includes duplication of track and upgrades of railway stations including Bunyip. These infrastructure works are expected to boost capacity and enable services to run every 40 minutes during the off-peak. Additionally, the removal of all level crossings between Caulfield and Dandenong as well as introduction of high capacity signalling as part of Melbourne Metro works will increase the capacity and reliability of the rail connection between the railway towns and Melbourne. The Princes Highway/Monash Freeway (M1) is currently undergoing widening and improvements between Melbourne and Pakenham East.

4.10 Planning Policy Framework

The Planning Policy Framework is delivered across the following subheadings.

- *Clause 11 Settlement*
- *Clause 12 Environment and Landscape Values*
- *Clause 13 Environmental Risk and Amenity*
- *Clause 14 Natural Resource Management*
- *Clause 15 Built Environment and Heritage*
- *Clause 16 Housing*
- *Clause 17 Economic development; and*
- *Clause 18 Transport*
- *Clause 19 Infrastructure*

Relevant objectives and strategies within these subheadings are included below.

Clause 11.01-1R Green Wedge – Metropolitan Melbourne

- *To protect the green wedges of Metropolitan Melbourne from inappropriate development.*

Relevant strategies of Clause 11.01-1R:

- *Promote and encourage the key features and related values of each green wedge area.*
- *Support development in the green wedge that provides for environmental, economic and social benefits.*
- *Consolidate new residential development in existing settlements and in locations where planned services are available and green wedge values are protected.*

Clause 11.01-1R Settlement- Metropolitan Melbourne

Relevant strategies:

- *Maintain a permanent urban growth boundary around Melbourne to create a more consolidated, sustainable city and protect the values of non-urban land.*

Clause 11.01-1S Victoria – Settlement

- *To promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.*

Relevant strategies:

- *Develop sustainable communities through a settlement framework offering convenient access to jobs, services, infrastructure and community facilities*
- *Ensure regions and their settlements are planned in accordance with their relevant regional growth plan.*
- *Guide the structure, functioning and character of each settlement taking into account municipal and regional contexts and frameworks.*
- *Create and reinforce settlement boundaries.*
- *Provide for growth in population and development of facilities and services across a regional or sub-regional network.*
- *Limit urban sprawl and direct growth into existing settlements.*
- *Ensure land that may be required for future urban expansion is not compromised.*

Clause 11.02 Managing Growth

- *To ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.*
- *To facilitate the orderly development of urban areas*
- *To manage the sequence of development in areas of growth so that services are available from early in the life of new communities.*

Relevant strategies:

- *Ensure the ongoing provision of land and supporting infrastructure to support sustainable urban development.*
- *Ensure that sufficient land is available to meet forecast demand.*
- *Plan to accommodate projected population growth over at least a 15 year period and provide clear direction on locations where growth should occur. Residential land supply will be considered on a municipal basis, rather than a town-by-town basis.*

Clause 11.03-3S Peri-urban areas

- *To manage growth in peri-urban areas to protect and enhance their identified valued attributes.*

Clause 12.01-2S Native vegetation management

- *To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation*

Clause 12.05-2S Landscapes

- *To protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.*

Relevant strategies:

- *Ensure significant landscape areas such as forests, the bays and coastlines are protected.*
- *Ensure development does not detract from the natural qualities of significant landscape areas.*
- *Improve the landscape qualities, open space linkages and environmental performance in significant landscapes and open spaces, including green wedges, conservation areas and non-urban areas.*
- *Recognise the natural landscape for its aesthetic value and as a fully functioning system.*

Clause 13.02 – Bushfire

- *To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.*

Relevant strategies:

- *Give priority to the protection of human life by: Prioritising the protection of human life over all other policy considerations.*
- *Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.*
- *Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process.*

Clause 15.01-1S Urban design

- *To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity*

Clause 15.01-5S Neighbourhood Character

- *To recognise, support and protect neighbourhood character, cultural identity, and sense of place.*

Clause 15.01-6S Design for rural areas

- *To ensure development respects valued areas of rural character.*

Clause 15.02-1S Energy and Resource Efficiency

- *To encourage land use and development that is energy and resource efficient, supports a cooler environment and minimises greenhouse gas emissions.*

Clause 15.03 Heritage

- The objective of Clause 15.03 is to ensure the conservation of places of heritage significance.

Clause 16.01-4S Housing affordability

- To deliver more affordable housing closer to jobs, transport and services.

Clause 16.01-5S Rural residential development

- To identify land suitable for rural residential development.

Relevant strategies:

- Manage development in rural areas to protect agriculture and avoid inappropriate rural residential development.
- Encourage the consolidation of new housing in existing settlements where investment in physical and community infrastructure and services has already been made.
- Demonstrate need and identify locations for rural residential development through a housing and settlement strategy.

Clause 16.01-3S Housing diversity

- To provide for a range of housing types to meet diverse needs.

Clause 16.01-2S Location of residential development

- To locate new housing in designated locations that offer good access to jobs, services and transport.

Clause 16.01-1S Integrated housing

- To promote a housing market that meets community needs.

Clause 17.01-1S Diversified economy

- To strengthen and diversify the economy.

Relevant strategies:

- Protect and strengthen existing and planned employment areas and plan for new employment areas.
- Facilitate regional, cross-border and inter-regional relationships to harness emerging economic opportunities.
- Facilitate growth in a range of employment sectors, including health, education, retail, tourism, knowledge industries and professional and technical services based on the emerging and existing strengths of each region.
- Improve access to jobs closer to where people live. Support rural economies to grow and diversify.

Clause 17.02-1S Business

- To encourage development that meets the community's needs for retail, entertainment, office and other commercial services

Clause 17.03-2S Industrial development siting

- To facilitate the sustainable development and operation of industry.

Clause 17.03-1S Industrial land supply

- To ensure availability of land for industry

Clause 17.04-1S Facilitating tourism

- To encourage tourism development to maximise the economic, social and cultural benefits of developing the state as a competitive domestic and international tourist destination.

Clause 18.01-1S Land use and transport planning

- To create a safe and sustainable transport system by integrating land use and transport.

Clause 18.02-1S Sustainable personal transport

- To promote the use of sustainable personal transport.

Clause 18.02-2S Public Transport

- To facilitate greater use of public transport and promote increased development close to high-quality public transport routes.

Clause 18.02-3S Road system

- To manage the road system to achieve integration, choice and balance by developing an efficient and safe network and making the most of existing infrastructure.

Clause 18.02-4S Car parking

- To ensure an adequate supply of car parking that is appropriately designed and located.

Clause 19.02-1S Health facilities

- To assist the integration of health facilities with local and regional communities.

Clause 19.02-2S Education facilities

- To assist the integration of education and early childhood facilities with local and regional communities.

Clause 19.02-5S Emergency services

- To ensure suitable locations for police, fire, ambulance and other emergency services.

Clause 19.02-4S Social and cultural infrastructure

- To provide fairer distribution of and access to, social and cultural infrastructure.

Clause 19.03-1S Development and infrastructure contributions plans

- To facilitate the timely provision of planned infrastructure to communities through the preparation and implementation of development contributions plans and infrastructure contributions plans.

Clause 19.03-2S Infrastructure design and provision

- To provide timely, efficient and cost-effective development infrastructure that meets the needs of the community.

Clause 19.03-3S Water supply, sewerage and drainage

- To plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet state and community needs and protect the environment.

Clause 19.03-5S Telecommunications

- To facilitate the orderly development, extension and maintenance of telecommunication infrastructure.



4.11 Local Planning Policy Framework

Clause 21.01-3 – Cardinia Shire – Key Issues

This Clause identifies the following key issues affecting planning in Cardinia:

- ‘Urban growth including urban pressures on the rural hinterland and management of green wedge areas.’
- ‘The quality and character of existing rural townships.’
- ‘Infrastructure to meet the needs of the existing and future community.’
- ‘Environmentally significant areas.’
- ‘Areas of significant landscape value.’
- ‘The protection and sustainable use of agricultural land.’
- ‘The local economy including employment opportunity areas.’

Clause 21.02-2 – Landscape

This Clause recognises landscapes as distinctive attribute of Cardinia Shire. Relevant strategies of this Clause include:

- ‘Ensure that development in the urban growth area does not intrude or adversely impact on the landscape values of the area north of the Princes Highway and maintains significant vistas.’
- ‘Recognise the landscape values associated with rural land including areas south of the Princes Highway.’
- ‘Recognise the contribution of drains and bridges to the character of the rural landscape.’

Clause 21.03-1 – Housing

This clause identifies that housing in Cardinia is dominated by detached dwellings in both urban and rural areas. It notes that the urban growth area will continue to attract younger families into the foreseeable future and that as the housing market matures and the needs of households change, there will be an increasing demand for more diverse forms of housing. Housing needs between the townships and urban growth areas may also differ.

Key issues raised include:

- ‘Providing for a diversity of housing types and densities, including increased housing density around activity centres.’
- ‘Balancing diversity of housing choices in rural townships while ensuring consistency with the character of the township.’
- ‘Recognising the need for affordability and availability of housing choice for different income levels in both the rental and purchaser markets.’
- ‘Recognising the demand for specialist design housing including housing for the aged, people with a disability or mobility issues.’
- ‘Identifying the demand for social and community housing.’

The relevant objectives and associated strategies to address these issues include:

- ‘To encourage a diversity in housing to meet the needs of existing and future residents.’
- ‘Ensure that future housing growth is effectively managed to maintain and enhance the qualities of the municipality.’
- ‘Encourage a range of lot sizes and housing types in new developments that satisfy the needs and aspirations of the community.’

- ‘Encourage an increase in densities provided it occurs in the context of an increase in the standard of urban design, timely provision of infrastructure and is consistent with the existing and/or preferred neighbourhood character.’
- ‘Encourage medium density housing (average of 20 dwellings per hectare) to be located within or at the interface of activity centres and overlooking local and linear open space.’
- ‘Ensure residential development and subdivisions are designed with attractive streetscapes and urban character.’
- ‘Ensure that new development is located within a safe, attractive and well planned environment that allows residents to maximise opportunities to undertake physical activity.’

Clause 21.03-3 – Rural Townships

Cardinia's settlement pattern comprises existing urban areas and growth areas as well as a hierarchy of townships. This Clause identifies Garfield, Bunyip and Nar Nar Goon as Large Rural Townships and Tynong as a Small Rural Township.

Key issues identified for the rural townships are:

- ‘Retaining and enhancing the existing rural township character.’
- ‘Setting clear limits for development for the townships.’
- ‘Acknowledging that the capacity for growth varies depending on the environmental and infrastructure capacities of each of the towns.’
- ‘Designing with regard to the surrounding unique characteristics of the townships.’

The relevant objectives and associated strategies to address these issues include:

- ‘To provide for the sustainable development of townships in the municipality having regard to environmental and servicing constraints.’
- ‘Provide sewerage treatment and stormwater management systems to minimise the impact of existing township development on the environment, and to enable development to occur in townships in accordance with strategy plans.’
- ‘To maintain and enhance the distinct character and environmental qualities of each of the townships.’
- ‘Maintain the current diverse range of lot sizes in the hills towns as an intrinsic part of their character.’
- ‘Protect the natural environment and character of the area, particularly areas of remnant vegetation in the hills townships.’
- ‘Maintain and promote the elements which contribute to the overall historic character of towns like Gembrook, Bunyip and Garfield.’
- ‘Encourage new development to include works that enhance the environment including the protection of waterways and remnant vegetation, weed control and revegetation.’
- ‘To create sustainable and functional townships that supports a range of commercial, retail, community and recreational facilities and services.’
- ‘Encourage opportunities for ‘over 55’ and aged housing within townships.’

Rural Township Strategies have been prepared for Garfield and Bunyip.

Clause 21.03-4 – Rural Residential and Rural Living Development

Rural residential development is defined as the development of single dwellings on lots of between 0.4 hectares and 2.0 hectares and rural living is defined as residential development on lots of between 2 hectares and 16 hectares.

The key issues identified include:

- Integrating rural residential and rural living development with an urban area or township.
- Recognising that rural residential and rural living development impacts on the environmental characteristics and constraints of the area.
- Recognising the impact of rural residential and rural living development encroaching on agricultural land.

The objectives and strategies to address these issues include:

- To recognise the demand for rural residential and rural living development, and to provide for this development where it is closely integrated with an existing township or urban area.
- Ensure that rural residential and rural living development is appropriately located to minimise its impact on surrounding agricultural land.
- Encourage rural residential development within existing urban areas and townships.

Clause 21.04-2 – Agriculture

This Clause recognises the value of agricultural production in Cardinia which is estimated at around \$1 billion which is 15% of Victoria's annual gross value of agricultural production. It states that 'the average gross value of agricultural production per hectare from the Port Phillip and Western Port Region's farms is the highest of any catchment management region in Victoria and is around four times greater than the State average'.

Further, it notes that "the Koo Wee Rup Swamp area contains a peaty clay soil which is recognised as being of high quality agricultural land of State significance. This area now produces 90% of Australia's asparagus crop and approximately 50% of this production is exported annually (Casey-Cardinia Agricultural Audit).

The general distribution of land capability for agriculture in Cardinia Shire is shown at Figure 9 which designates the land surrounding the towns of Nar Nar Goon, Tynong, Garfield and Bunyip as 'good' in terms of its agricultural significance.

The key issues identified, include:

- 'Maintaining and protecting high value of agricultural land within the municipality
- Protecting productive agricultural land from incompatible uses and inappropriate development and subdivision, including non-soil based farming on lands with high soil quality.
- Developing Green Wedge Management Plans to fulfil statutory, strategic, environmental, economic and social requirements.'

The relevant objectives and associated strategies include:

- 'To maintain agriculture as a strong and sustainable economic activity within the municipality.
- Protect agricultural land, particularly areas of high quality soils, from the intrusion of urban uses, inappropriate development and fragmentation which would lead to a reduction in agricultural viability, the erosion of the right of farmers to farm land, and ultimately the loss of land from agricultural production.
- Recognise the growing demand for food, both domestically and internationally, and capitalise on opportunities to export fresh produce and processed food products.

- Provide for the restructuring of lots in agricultural areas to reduce the impact of old and inappropriate subdivisions on the agricultural viability of the area.
- Ensure the use or development, including subdivision, of agricultural land takes into consideration land capability.'

Clause 21.04-4 - Industry

This policy provides content to support **Clause 17.02** of the State Planning Policy Framework. It notes that the main industrial areas within the municipality are established in Pakenham with smaller pockets outside of this area, including Bunyip. It suggests that a number of existing industries add value to the process of agricultural production. Relevant key issues with respect to industry, include:

- 'Facilitating linkages between industry and agricultural uses particularly in terms of transport networks.'
- 'Locating future industry to ensure appropriate access from the transportation network.'

The relevant objectives and associated strategies to address the key issues, include:

- 'To develop manufacturing and service industries that provide services to local residents and businesses, support local employment and reflect a high standard of urban design.'
- 'Encourage a range of lot sizes to meet the needs of different users, including the encouragement of larger lots for major developments on main or arterial roads.'
- 'Encourage subdivision that is consistent with relevant precinct structure plans and urban design frameworks.'

- 'Provide for limited retailing (restricted retail and trade supplies) in industrial areas along arterial roads provided the retailing activities do not conflict with nearby activity centres.'
- 'Encourage the establishment of industries which add value to local agricultural produce.'
- 'Consider the establishment of rural industries in green wedges if they are directly related, or contribute, to agricultural production.'
- 'Encourage the establishment of service industries in townships to meet the needs of local residents and to provide for local employment'.

Clause 21.04-5 - Tourism

This policy provides local content to support **Clause 17.03** of the State Planning Policy Framework. It states that although Cardinia is not generally considered a tourist destination, the municipality offers opportunities for visitors to experience the areas boutique farm produce, arts and crafts, cultural and historic locations and the natural environment. Key issues raised include:

- 'Acknowledging that tourism is an important economic activity in the municipality.'
- 'Recognising that Puffing Billy Tourist Railway is an asset of cultural, historic and economic significance and is a major attractor of tourists to the municipality.'
- 'Protecting and enhancing the scenic and environmental values of the landscape in Cardinia, including the rural outlook from key tourist routes.'
- 'Minimising the adverse impacts of development on the landscape and environment through appropriate scale and design.'
- 'Linking with neighbouring tourism regions especially Yarra Ranges, South Gippsland and West Gippsland.'

For discussion purposes

- 'Undertake a balanced approach between supporting new and growing businesses and protecting the Green Wedge environment and rural assets upon which the business is based.'

The relevant objectives and associated strategies to address the key issues, include:

- 'To provide support for the maintenance and development of tourism related activities.'
- 'Support the Puffing Billy Tourist Railway and associated facilities as a tourist attraction of State significance.'
- 'Ensure that the visual corridor along the railway is protected from inappropriate development.'
- 'Protect areas of high scenic value and landscape quality, especially the rural outlook from key tourist routes.'
- 'Support better linkages with both Dandenong Ranges and Gippsland tourism regions by establishing local tourism infrastructure and facilities to complement major regional attractions.'
- 'Encourage the establishment of tourism activities in rural townships within the municipality through the establishment of activities including accommodation, restaurants, cafes, galleries, markets, and through undertaking streetscape improvements and upgrading public amenities.'
- 'Support the development of tourist accommodation within the municipality which does not adversely impact on the environment or affect the amenity of local residents.'
- 'Ensure that tourism development is of a scale and design that is compatible with the locality and minimises adverse impacts on the environment.'
- 'Recognise the importance of and opportunities for links between tourism and agriculture (eg: wineries, host farms and rural displays).'

- 'Facilitate the development of complimentary facilities at golf courses including accommodation, conferencing and dining facilities where appropriate.'
- 'Facilitate the development of recreational facilities and events that attract people into the municipality.'

Clause 21.04-6 - Extractive Industry

This policy provides content to support **Clause 14.03** of the State Planning Policy Framework. It notes that in Cardinia, there are areas identified as extractive industry interest areas which significantly overlap with areas of high environmental and landscape values. These areas contain significant stone resources, being hard rock which is extracted primarily from the hills north of the Princes Highway and sand resources in the Lang Lang area. The Department of Primary Industries has identified extractive industry interest areas within the Cardinia Shire (shown in Figure 10) which includes areas north and south of the town of Tyng.

Clause 21.07-7 - Bunyip

This Clause relates to the township of Bunyip and outlines the vision as identified by the Bunyip Township Strategy (September, 2009) and the Strategic Framework Plan (extract shown at Figure 11). The vision for Bunyip is '...to be a rural township with extensive recreational opportunities, potential for substantial growth and a commercial and retail centre providing an extensive range of services to the township and nearby residents. Bunyip will contain a range of housing types that respect the rural character of the town and the natural landscape. Open space areas will be diverse to allow access for active and passive recreation while ensuring the protection of remnant vegetation and wildlife corridors to allow the movement of species through the landscape.'



Fig. 9 Land Capability for Agriculture (Extract from Clause 21.04-2)

Relevant objectives to achieve local area implementation include:

- 'Accommodate the growth of Bunyip within the current urban growth boundary.
- Ensure the long-term sustainability of the community by providing residential development for a range of lifestyle opportunities.
- Direct commercial and retail uses to the Main Street and the southern end of High Street.
- Promote 'infill' development in Main Street and High Street.
- Ensure further development of sites along Main Street does not compromise the future construction of the proposed car park at the rear of these lots.
- Require improvements in the connectivity of pedestrian and vehicular networks within the township as part of new subdivisions and developments.
- Improve opportunities for passive recreation including by continuing to develop a network of trails.'

Clause 22.05 – Western Port Green Wedge Policy

This policy applies to all land within the western port green wedge, as identified on Map 1 at **Clause 22.05-3** (extract shown below).

The vision for the Cardinia Western Port Green Wedge is:

'The Cardinia Western Port Green Wedge will be a permanent green and rural area. It will remain an internationally significant biodiversity habitat, while also strengthening its agricultural and horticultural role to become a truly innovative and productive farming district. Agriculture, horticulture and soil based food production for the long-term food security of Victoria is at the heart of this vision.'

Best practice integrated water management will lead to improved water quality and a reduced risk of flooding with improved ecological conditions in Western Port Bay and local biodiversity will be protected, as will habitats for threatened species.

The Green Wedge will be home to small, clearly defined settlements that have a strong identity, provide jobs and services for the local community and support the agricultural and horticultural pursuits of the green wedge.

The local economy will be driven by its agriculture, horticulture and extractive industry. The Cardinia Western Port Green Wedge provides the opportunity to accommodate a further third airport to serve the long term needs of the South East Melbourne and Gippsland as identified in Plan Melbourne.

The Cardinia Western Port Green Wedge will be the permanent edge to Melbourne's southeast.'

The objective of the policy is to give effect to the vision for the green wedge, ensure that land uses are appropriately located and managed, and provide clear guidance on tourism industries and preferred land uses for each precinct.

The railway towns form part of 'Precinct 3: Railway' and the vision and future directions/preferred land uses are shown in **Table 3**.

Table 3 Extract from Table 1 at Clause 22.05-3

Precinct	Precinct Vision	Future Directions/Preferred land uses
Precinct 3: Railway	The railway precinct will provide a sensitive transition from urban townships to green wedge land, assist in protecting land that is of agricultural, landscape, environmental and biodiversity significance and will continue to support the Pakenham Racing Club's Tynong Racecourse. This precinct will seek to ensure that UGBs are defensible in the long term and that there is a clear edge to metropolitan growth. Any intensification of the development pattern of the townships that exist within the precinct, or expansion of their boundaries must be strategically justified and be proven to not detrimentally impact the surrounding Precinct 1 or the environmentally sensitive environment of the Cardinia Western Port Green Wedge	• Discourage non-rural uses such as primary, secondary schools and places of worship from locating within the precinct and locate these types of uses within the existing townships and within the green wedge land that adjoins the UGB, subject to strategic justification. • Encourage non-soil based agricultural uses. • Retain the rural character of the precinct. • Retain and protect the existing character and the unique identities of the railway towns. • Allow only limited growth for all Green Wedge settlements, where supported by an adopted township strategy and / or policy. • Any expansion of townships will be carefully considered for reasons related to the protection of built character and subdivision patterns, landscape character, servicing constraints, existing agricultural and intensive animal husbandry activities, flood risk, and environmental values. • Protect the values and assets of the green wedge by preventing further encroachment of urban development into the Western Port Green Wedge. • Ensure that appropriate land use zones are applied at the edge of townships that ensure a low density / rural transition to the surrounding green wedge land. • Encourage and support the use of the precinct for agriculture and biodiversity to ensure that land use is compatible with the adjacent Precinct 1. • Support potential future extractive industry in the area nominated as an extractive industry interest area within Precinct 3. • Ensure that there is a balance between the extraction of natural resources and the intent of the precinct and that any investigation and operation is carefully planned to ensure that it is compatible with local amenity, landscape, flora and fauna and water quality.

4.12 Other Documents

4.12.1 Cardinia Western Port Green Wedge Management Plan

The Cardinia Railway Towns are included within Precinct 3 of Cardinia Shire's Western Port Green Wedge Management Plan (2017). The vision specifies that 'the green wedge will be home to small, clearly defined settlements that have a strong identity, provide jobs and services for the local community and support the agricultural and horticultural pursuits of the green wedge.' The Management Plan identifies the Railway Towns as Precinct 3. The directions of which are listed in Table 2 at Clause 22.05.

4.12.2 Youth Policy and Strategy Background Paper

This 2007 background paper identified that Bunyip and Garfield had a particularly high rate of growth for the 10-24 year old age bracket and demonstrated the need for increased youth services in these areas to support growth.

In the decade since, there has been only small growth as well as a moderate decline in 18-24 year olds in Bunyip.

4.12.3 Bunyip Township Strategy (2009)

The vision for Bunyip put forward by this Strategy reinforces a trend of moderate growth within the existing settlement area of the township.

The vision for Bunyip is:

'A rural township with extensive recreational opportunities, potential for substantial growth and a commercial and retail centre providing an extensive range of services to the township and nearby residents.'

The Bunyip Township will contain a range of housing types that respect the rural character of the town and the natural landscape. Open space areas will be diverse, to allow access for active and passive recreation while ensuring the protection of remnant vegetation and wildlife corridors to allow the movement of species throughout the landscape.'

The strategic objectives for the Bunyip Township include:

- 'Provide for the growth of Bunyip as an attractive rural township
- Maintain the rural township character
- Provide a range of lot sizes and types to accommodate a mix of household and lifestyle types
- Provide opportunities for local employment and services in the Bunyip Township
- Promote tourism opportunities in the Bunyip area
- Maintain and augment the range of community and commercial facilities provided to meet the needs of the community
- Protect and enhance the environment, especially those elements which contribute to the character of the Bunyip Township
- Maintain and enhance existing public transport
- Improve pedestrian safety and movement in the town centre.'

An extract of the Strategic Framework Plan is shown at **Figure 11** (Page 29).

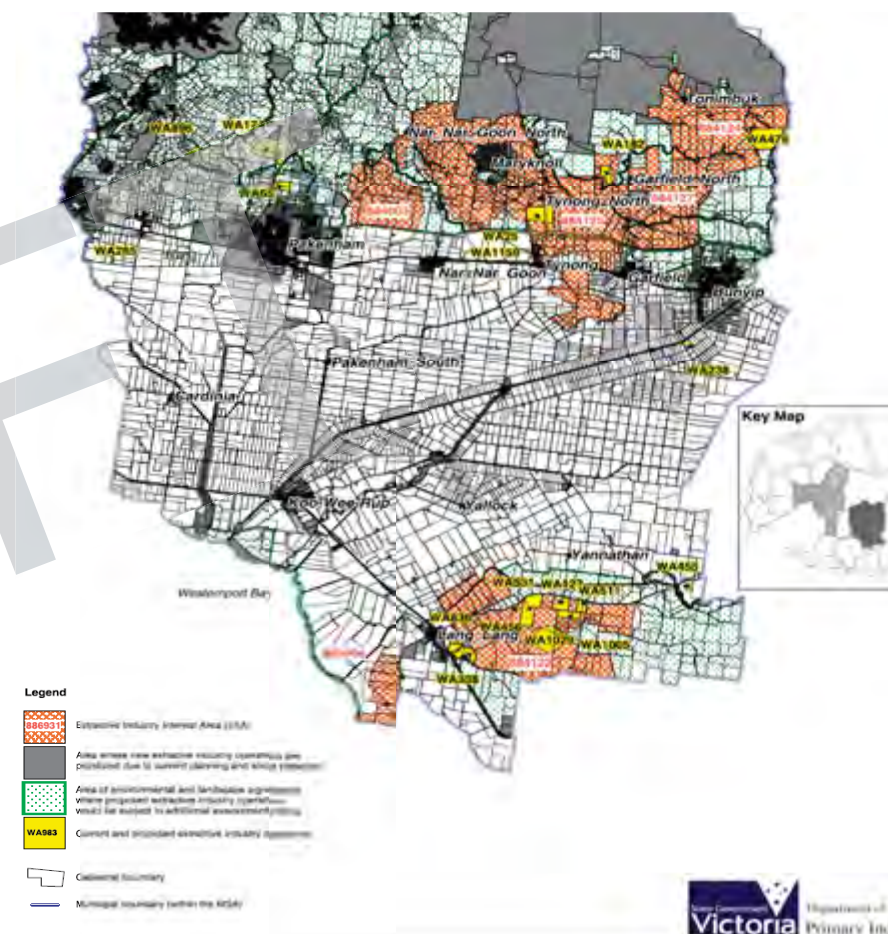


Fig. 10 Extract from Figure 7 at Clause 21.07-7

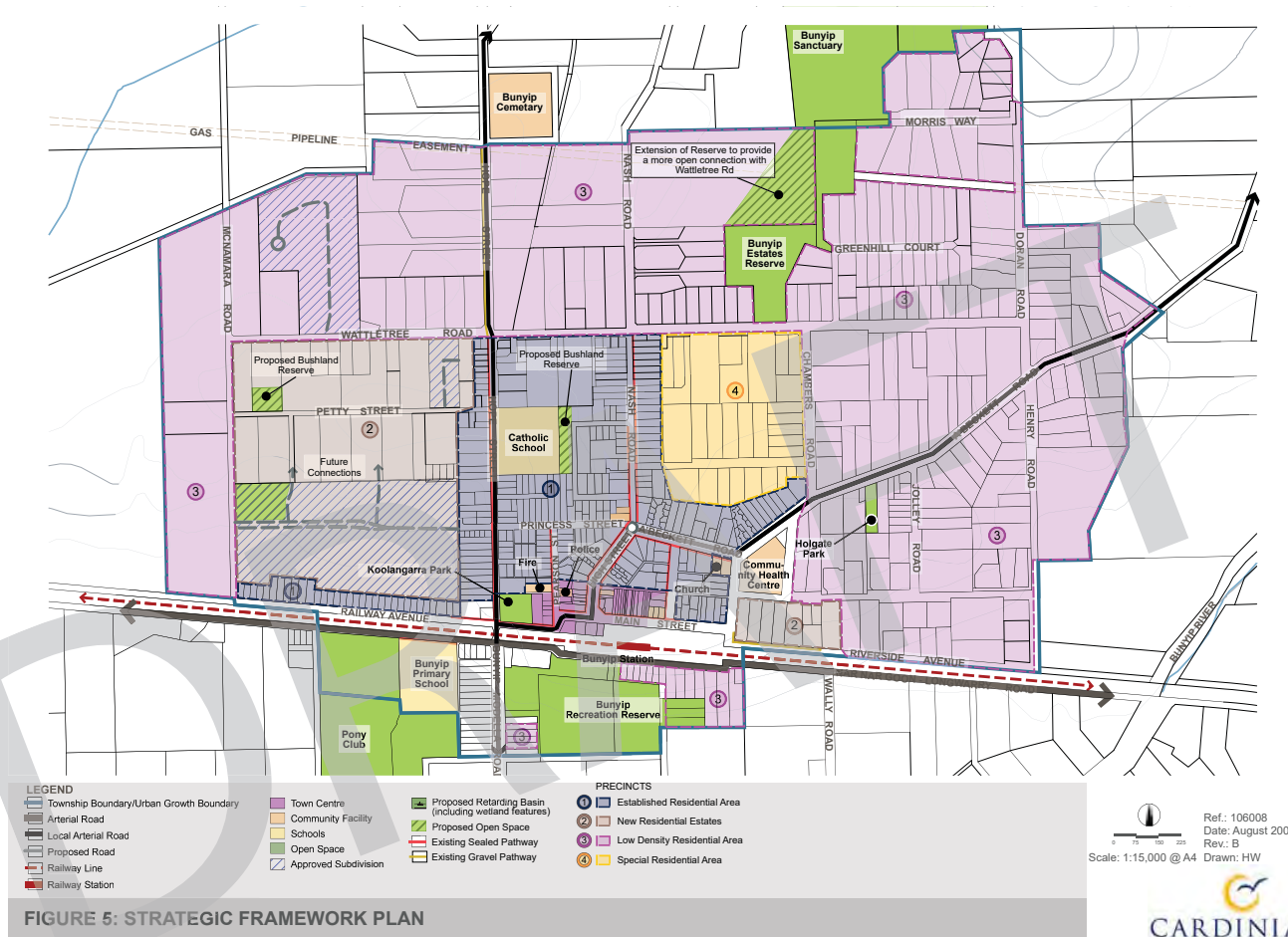


Fig. 11 Extract from Figure 17 at Clause 21.04-6

4.12.4 Garfield Township Strategy (2002)

The Township Strategy identifies the vision for Garfield as 'ensure the long term sustainability of the township, retain its identity as a rural rail town and an attractive place in which to live. Provide for a basic level of commercial and community service provision and build on the heritage values of the township to promote tourism opportunities.'

The objectives of the Strategy are to:

- 'Ensure the long term sustainability of the township.
- Retain the intrinsic rural character of Garfield by defining the township boundaries and guiding future development through development controls.
- Provide growth opportunities and plan for an ultimate population of around 1,850 persons.
- Promote and facilitate a variety of housing styles and tenures that offer alternative lifestyle opportunities.
- Encourage the renewal and revitalisation of the existing commercial precinct on a long term viability basis and encourage sustainable business investment that provides for job creating opportunities;
- Foster community development and promote social integration and interaction by encouraging participation in locally based organisations, committees and sporting clubs.
- Ensure that the existing community and recreation facilities provide for a range of recreation needs and user groups.
- Promote an identifiable character through improved gateway statements, building design, streetscape and landscaping.

- Protect and enhance the heritage values of the commercial precinct and promote tourism opportunities.
- Protect and enhance the natural environment.
- Build collaborative partnerships with neighbouring townships, particularly Bunyip Township.

An extract of the Strategic Framework Plan is shown at **Figure 12**.

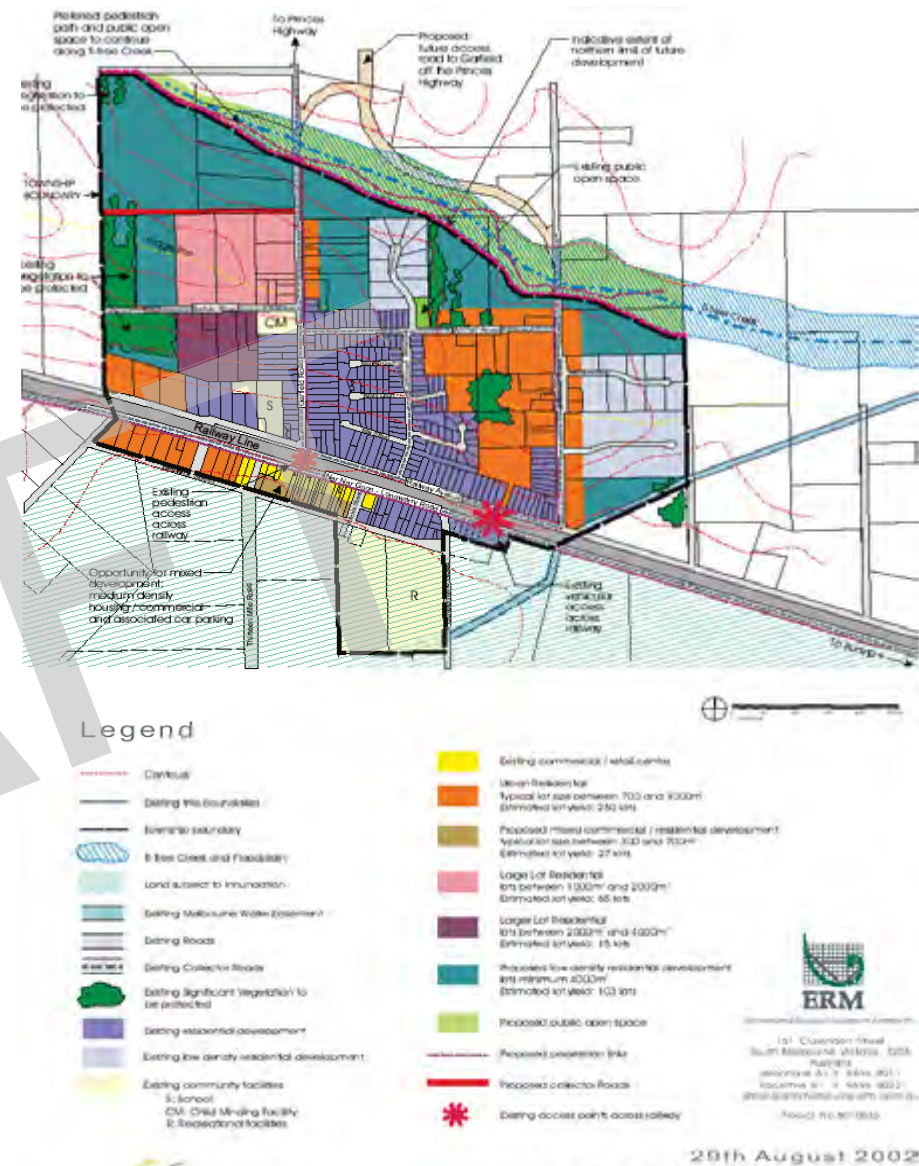


Fig. 12 Garfield Township Strategy (2002)



04 Principles for Growth

The four railway towns have many commonalities, as well as many differences and it is important to understand how these attributes complement or detract from the long term sustainable growth of each town. Furthermore, realising the potential of the towns to function as a defined set (i.e 'The Railway Towns') is key to their sustained growth.

The extensive vegetation and treed landscape within the towns and surrounding green wedge zones, as well as numerous heritage listed buildings are distinct attributes belonging to each town. It is important for these common characteristics to be promoted as part of the 'Railway Towns' image. At the same time, the differences, predominantly in the range of services currently available in Garfield and Bunyip, should be promoted as a point of difference to Nar Nar Goon and Tynong to draw in residents, workers and visitors. Through a range of planning principles and strategies, the towns can successfully function as engaging, attractive areas that service the needs of residents, visitors and workers. These include:

- *Principle 1: Separate and distinct towns*
- *Principle 2: Retaining the rural character*
- *Principle 3: Strong green wedge buffers*
- *Principle 4: Connectivity and unity*
- *Principle 5: Timely provision of services and infrastructure*
- *Principle 6: Planning for growth and size of towns*

4.1 Principle 1: Separate and distinct towns

Each town should be clearly separate from the next by continuing to clearly define the urban growth boundaries of Garfield and Bunyip and implementing urban growth boundaries for Nar Nar Goon and Tynong. The towns must not be visible from Princes Highway and protected via landscape buffers and not sound walls in order to retain the rural character. Furthermore, strong green wedge corridors between each town will ensure the towns are not visible from one another.

In addition to these buffer distances, it is important that development to the north of Nar Nar Goon is limited to maintain an approximate one kilometre green wedge buffer distance from Princes Highway and an approximate two kilometre green wedge buffer be retained between Nar Nar Goon and Tynong. Development to the south of Nar Nar Goon will also be limited due to flooding constraints. Retaining the existing green wedge buffer to the west of Nar Nar Goon is also recommended to provide a visual and physical separation from Pakenham East. Having a clear buffer parameter for Nar Nar Goon ensures ongoing development occurring within Metropolitan Melbourne does not encroach onto the Railway towns. The ongoing development of Pakenham and Pakenham East will have implications for the Nar Goon and Tynong areas. These implications are described in greater detail below under Section 5.

Environmental significance and vegetation overlays, and bushfire controls are currently in place in and around each of the towns. Reinforcing these controls limits built form encroachment near the external boundaries of each town and helps to limit physical connections with the surrounding towns, thereby protecting the green wedge.

Commercial activities should be consolidated along main streets and adjoining local streets to provide a town centre anchorage. This assists in clearly distinguishing the boundaries of the town centre which is particularly important for visitors. Community services and local open spaces should also be located close to the town centre and be easily visible.

Each town should continue to build upon or develop a clear vision or narrative about what the town offers. Garfield and Bunyip have previously prepared framework plans to guide the vision and form of the towns and Nar Nar Goon and Tynong could prepare similar framework plans.

The differences exhibited across each town should be seen as advantageous in attracting residents, workers and visitors. The critical element is ensuring that each town remains sustainable in its own right, by offering a range of local services commensurate with the current and forecast population, whilst also providing a "point of difference" from each town to the next.

4.2 Principle 2: Retaining the rural character

Sustainably managing the growth of each town will help to retain the rural character of the Railway Townships. Each town should not exceed a population of 5,000 people or a combined population of 20,000 residents across the four towns.

The railway towns possess unique and historically significant buildings, streets, open spaces and landscape features. It is important that valued heritage buildings and features are not lost through redevelopment. Where the built form and streetscape character of an area is established and valued, new development should respect this character. Some areas may experience more substantial redevelopment in areas with little existing built form to guide future development. These areas should seek to create equally attractive buildings that add to the rural setting of the towns. Unique buildings which help to capture the story of the towns, such as the Garfield Theatre, or new monumental buildings can become 'must see' places for visitors and contribute towards increasing tourism levels.

Existing and proposed residential developments should encourage generous front, side and rear setbacks to accommodate large canopy trees. Planting of additional street trees along main streets and retaining significant and/or native trees and vegetation will also help to retain the rural character of the towns.

For discussion purposes

4.3 Principle 3: Strong Green Wedge Buffers

Retaining strong green wedge buffers is fundamental to protecting the rural charm of each town and ensuring any additional services, shops and residential development is contained within the UGB boundaries, or in the case of Nar Nar Goon and Tynong, a ten minute walking from the town centre until a permanent UGB is established. Reinforcing the green wedge and consolidating any future urban footprint ensures residents can easily access services and shops by foot, cycling or short car travel and limits the expansion of sensitive uses, particularly residential use within bushfire prone areas. The green wedge corridors between each town also ensure the towns are not visible from one another.

The *Cardinia Western Port Green Wedge Management Plan (2017)* includes a set of principles for how the green wedge land should be used and protected. The first principle states:

'Agriculture, horticulture and soil based food production will be prioritised and protected. Opportunities for new soil based agriculture and horticulture will be encouraged and promoted.'

Principle 5 and 6 emphasise the need to protect wetlands and habitats of protected species, such as the southern brown bandicoot and the growling grass frog and also enhance sites of cultural heritage significance.

Principle 7 encourages green wedge land to have economic and social benefits for existing and planned tourism and recreation assets to be protected and promoted through integrated planning mechanisms.

Reinforcing Principle 7, unless the green wedge land is justified from an economic and/or community value standpoint, there will be ongoing pressure to rezone land within the green wedge for alternative uses. Therefore, in conjunction with agriculture uses, green wedge land must have activities that can be used by the local community and visitors

on a regular basis and that provide a sustainable economic return - enough to justify the activities existence against proposals for urban expansion.. These activities may include agriculture/horticulture or farms, sales, open space and recreation and other tourism activities.

Due to the fragmentation of the green wedge land, mostly divided across privately owned farming land, it is difficult for council to directly implement new activities across the green wedge land.

Local planning policies and zones should continue to encourage the use of land for agriculture purposes. Where land is not suitable for agriculture use, Council should encourage the use of land for alternative uses which will retain the green wedge buffer. This maybe done through planning policies but also seeking funding through local and state grants. It is recommended that Council build upon the actions of the *Cardinia Western Port Green Wedge Management Plan* in specifying exactly what economically viable recreational uses would be supported in the green wedge land between each town.

4.4 Principle 4: Connectivity and unity

Each of the towns should be considered as part of a united set of railway towns through a range of planning and urban design strategies. The towns should consider the uses, particular key tourism attractions, available in each town and implement uses and developments which will complement those existing in other towns, and where appropriate draw attention to these close by attractions as a means of promoting the four towns as a connected and united set of railway towns.

The towns could also be better connected through the provision of shared infrastructure. The Cardinia Shire Council Pedestrian and Bicycle Strategy recommends the inclusion of a cycling track which runs parallel to the railway line between Pakenham to Bunyip. This proposal and other planning and urban design strategies will help to reinforce this principle.

4.5 Principle 5: Timely Provision of services and infrastructure

Coordinating the timely provision of services is critical for ensuring the sustainability of each town and protecting the livelihood of its residents. As detailed in Sections 9 to 11 of this report, each town has a different population and demographic patterns, and subsequently the infrastructure available in one town can vary significantly to the next. As the towns' populations expand and the demographic patterns continue to change, Council needs to promptly assess the requirements of the community and ensure the correct community provisions and larger infrastructure assets, such as water and sewerage connections are provided prior to the need for it becoming a critical issue with the potential to threaten property or lives.

The provision of aged care services and schools are commonly under supplied in areas experiencing growth of young families, or in areas where there is a predominantly aging population. The location and design of any aged care services should not only consider demographic patterns, but also the specific requirements of future residents, particularly ensuring residents with more mobility continue to have access to basic services, quality open space and recreational areas. The provision of primary or secondary schools should follow a similar process and consider not only enrolment numbers but also travel movements of students, environmental risks and proximity of existing schools.

4.6 Principle 6: Planning for growth and size of towns

The future growth of each town is underpinned by an over-arching objective to retain the rural charm and historical elements of each town. Therefore, a low growth option can be put forward and generally be contained within each towns' designated urban growth boundary.

A low growth option would consolidate urban growth around the existing town centres or urban growth boundary in the case of Garfield and Bunyip.

Ultimate growth of the towns would encourage infill development of existing residential land and consolidation of commercial services near the train stations for Garfield and Bunyip. Ultimate growth would also provide residential land for the existing and forecast population with a walking catchment of 10 minutes for all the towns. This would signal a significant expansion of land marked for residential land in Nar Nar Goon and Tynong.

Based on the existing attributes and economic drivers (i.e Pakenham Race Course) identified for each town, the smaller towns of Nar Nar Goon and Tynong are expected to have limited growth in the near future. Substantial growth of Nar Nar Goon and Tynong would only be applicable if there was a significant population increase and would need to be carefully managed to retain the rural context of the towns. Growth of Nar Nar Goon and Tynong beyond what is proposed under the 'ultimate growth' scenario would result in a noticeable departure from the current rural context of the towns. This approach should be supported by further investigation to understand the physical and social infrastructure required to support such an expansion.

Garfield and Bunyip are anticipated to have limited growth beyond their existing UGBs. The proximity of Garfield from Tynong and the availability of provisions should continue to limit the expansion of Garfield and Bunyip. An ultimate growth scenario would encourage infill development of existing residential land around the peripheries of the UGB and some rezoning of green wedge land. Of the four towns, Garfield and Bunyip are expected to remain the largest given their provision of services, retail and community facilities. Nar Nar Goon and Tynong are anticipated to absorb limited additional services through the opportunities associated with Pakenham racecourse and the equine industries.

As discussed in Section 8, there is merit in considering the growth of the towns in the context of two pairs, that being Nar Nar Goon and Tynong, and Garfield and Bunyip. This will enable a greater population catchment to sustain infrastructure and enable the towns to prosper into the future.



05 Implications of Pakenham and Pakenham East

The large and diverse range of retail and community services available in Pakenham currently do and will continue to draw in many of the residents from Nar Nar Goon and Tynong into the Pakenham and Pakenham East area. Nar Nar Goon and Tynong Railways Stations are approximately 1.5 to 5 kilometres from the proposed Pakenham East town centre and 5 kilometres from Pakenham.

As detailed in Sections 9 and 10 of this report, Nar Nar Goon and Tynong have limited retail and community services and many of the existing residents travel to Pakenham for their shopping, banking and various health and educational needs, as well as employment opportunities.

The proximity of Pakenham and the proposed Pakenham East Town Centre to the Princes Hwy also enables easy access by private vehicle to the town centres from Nar Nar Goon and Tynong. Garfield and Bunyip are approximately 10-15 kilometres from Pakenham and include a larger range of retail and community services and social infrastructure. Subsequently residents are not as reliant on the services offered in the Pakenham area for their daily needs. It is expected that residents in these areas may 'drop in' to these centres when travelling to or back from the Metropolitan Melbourne area, as well as for employment opportunities and specialised services (i.e. Medical care).

As Pakenham East continues to develop and additional services and schools are available, this may attract additional population into the towns of Nar Nar Goon and Tynong. Residents choosing to live in Nar Nar Goon and Tynong would be able to experience the peri-urban lifestyle whilst also having good access to key services.

Expansion of these towns to accommodate the array of services available in Pakenham and Pakenham East is not a viable option now or in the near future, and risks diminishing the historical and rural character of the towns.

As highlighted in Section 7 *Economic Opportunities*, it is important that the railway towns, particularly Nar Nar Goon and Tynong build upon their unique historical and rural characteristics to attract residents and visitors.

Future economic growth and investment of these towns should focus on supporting boutique retail services and tourism related industries as a key point of difference to the retail offerings in Pakenham and Pakenham East. Sustaining basic services, upgrades to community facilities and enhancing open spaces to provide for local residents and encourage visitors to dwell or rest in the town should also be a key focus in sustaining these towns.

06 Servicing

The towns also have relationships that involve various linked infrastructure provision. This infrastructure (water, sewer, electricity and gas) has been assessed by LD Eng²⁴ and is summarised in the Services Map included in Sections 9 to 12 of this report.

Water

In terms of water supply, SEW has not allowed for any significant growth and any growth would trigger the need to negotiate a bigger offtake pipe system with Melbourne Water. Similarly, any potential new development initiated would be required to extend water mains to those holdings. As such, water supply to the existing four towns can be identified as a supply risk which will likely need to be upgraded, regardless of any growth considerations.

Sewer

South East Water is also the Responsible Authority for provision of sewer services to the site.

Tynong and Nar Nar goon are serviced by low pressure mains to Garfield (largely a gravity system). Comparably, Bunyip is largely a gravity system which then pumps out to Longwarry and then onto the sewer treatment plant.

Sewer servicing for the four towns is likely to provide the biggest limitation to greater development or growth. The existing low pressure sewer system has some capacity but was primarily only designed for the existing townships. The relocated Pakenham racecourse will be using some of this capacity in the first few years but they are putting in a pump station of their own in the longer term.

Given the location of the towns in the Metropolitan Green Wedge area and the UGB around Bunyip and Garfield, the capacity for growth is restricted

but could require upgrading if additional growth is experienced.

Essentially all towns piggy back onto each other, so any growth changes may impact the down "stream" towns. The Longwarry sewer treatment plant is being upgraded for normal growth and to take the racecourse effluent.

There will be a point when the Pakenham Sewer Treatment Plant will service both Nar Nar Goon and Tynong, however this is a 12km outfall which is not planned for construction until 2026/27. Nar Nar Goon and Tynong are only about 150 lots each, so that is not a huge leap in capacity for the Longwarry system when the Pakenham outfall comes online.

SEW are yet to officially provide the latest long term plans for the area and any capacity information they have (as its not publicly available or endorsed yet). SEW have also indicated that any growth should be focused along the Nar Nar Goon - Longwarry Rd which currently acts as a spine for their assets. This would allow closer connection proximity for developments to the existing servicing and reduce the need for long lead ins. Further growth north and south of the towns may be harder to service.

The Developer will be responsible for payment of South East Water's sewerage contributions applicable at the time of development. These contributions recover costs of systems provided for current and future urban growth.

Electricity/Gas

Ausnet is the responsible authority for the provision of electricity supply to the subject land. The Developer will be required to enter into an extension contract with Ausnet to extend electricity supply to each development parcel. Under the usual supply contract conditions Ausnet will provide rebates towards both high voltage and low voltage infrastructure under current policy.

Gas supply is the responsibility of APA and will be supplied to the subject land in accordance with normal Victorian land development practice. Distribution mains will be constructed by the Authority as development proceeds in the area

Summary

The four towns of Tynong, Nar Nar Goon, Garfield and Bunyip are currently serviced adequately by the relevant authorities. In their current form, the four towns are not able to support any substantial growth.

Telecommunications, Electricity and Gas servicing do not limit the development or growth of the area.

Much of the land areas south of the Nar Nar Goon-Longwarry Road are subject to inundation.

Further analysis will need to be undertaken to more accurately define those areas, and outline which areas may be lifted above the flood line (if any). Filling of the land would result in loss of flood storage and would need to be modelled to ensure there is no impact on surrounding flood levels.

The water supply to the existing four towns is labelled a supply risk which will need to be upgraded to provide a secondary supply point to the 4 towns regardless of any growth. Further analysis is required to be supplied by SEW.

Sewer servicing through the four towns is the biggest limitation to any development growth.

Further analysis is required to be supplied by SEW, however they have indicated that any growth should be concentrated along the Nar Nar Goon - Longwarry Rd which currently acts as a spine for their assets.'

24 LD Eng, 2017, 'Cardinia Shire Railway Towns Servicing Infrastructure Report

For discussion purposes



07 Economic Opportunities

SGS Economics²⁵ were requested to provide an overview of economic opportunities for the railway towns based on the population, forecasts and employment. The SGS report concluded that:

'The four railway towns present significant opportunities for the Cardinia region. In particular the natural and historic built environment of the towns offer a path for economic development and employment in the towns

There is expected to be substantial population growth across Cardinia over the coming decades. Cardinia is one of the fastest growing municipalities; since 1996 it has grown from a population of around 40,000 people to approximately 100,000 people in 2016. Growth will continue with an expected 200,000 people living in the Shire by 2051. The majority of this growth will be within the Melbourne urban growth boundary.

This growth, essentially next door to the towns, presents economic opportunities as well as challenges. The challenges in these towns reflect wider structural change in Australia's economy with a shift from manufacturing and agriculture to a services based economy. Manufacturing and agriculture would typically locate in regional areas and outer metro suburbs, and as evident from the previous sections, these sectors were historically important employers in the towns. Economic growth in Australia will increasingly be generated by high value service industries such as finance or professional services. These towns are not likely to attract such high value service jobs as they are too remote from current and future employment agglomerations.

However, the natural and historic built environment of the towns offer a path for economic development and employment in the towns.

By taking advantage of the opportunities outlined below it could be possible that employment may exceed the projected future growth, which indicate employment will be around 4,000 in 2051 across all towns. If these scenarios play out, employment could increase by 50 per cent from the baseline projections, to around 6,000 although it should be acknowledged that there is a high degree of uncertainty around exactly how future development will play out across the towns, given the small study area and long projection period.

Other opportunities beyond those outlined below (including, for example, leveraging the local agriculture for farm door retail) should consider the broader context and opportunities (i.e. how would this fit with other tourism destinations and attractions in the regions), and be designed as part of a municipal or regional wide strategy.

The following economic opportunities have been outlined by SGS Economics.

4.13 Historic Towns with a boutique attraction

The towns will offer a refreshing experience for those living in the close by, but vastly different, outer Melbourne suburbs. There is a significant opportunity associated with the towns successfully building their tourism and retail brands and offer. Trends associated with retail (including retailing as an 'experience' rather than a transactional activity) will drive consumers to attractive, fine grained retail locations with high quality food and beverage options.

Historic buildings lining the main streets of each town will contrast with the greenfield retail centres in Pakenham. If there is quality small scale retail, attractions and food services offered in these towns then these will be a strong draw for residents in Pakenham and beyond to visit for a morning or a day, given easy access by the Princess Highway and Traralgon train line (travel time of 1 hr 10 on the train from Southern Cross Station to Nar Nar Goon). The Garfield Picture Theatre which dates to 1925 has heritage significance as an unusually substantial country cinema.

It is one of the few picture theatre buildings remaining in the shire (though it is no longer used as a cinema). If this, and other historic buildings are maintained, the towns will be an attractive alternative for the future residents of Pakenham East to their local shopping strips and malls as an occasional or semi-regular destination.

Other urban-fringe areas have been able to successfully transform themselves into destinations for Melbourne day trippers which has greatly benefitted their local economies. For example, towns in Mornington Peninsula have built their reputation as places where visitors can shop for quality antiques and vintage clothes. Similarly, Castlemaine (population of around 7,000) has leveraged the long-established Castlemaine Art Museum to build a tourism brand as an artistic and historic town.

These examples demonstrate how the towns could successfully build tourism brands by creating destinations with unique offerings, leveraging existing assets.

4.14 Outdoor Recreation

The relative abundance of green space and bush land in and around the towns will be attractive for those in Melbourne looking for outdoor recreation. Gumbuya World in Tynong is an already established wildlife park which will continue to be a draw to the area. Gumbuya offers wildlife exhibits and rides which attract people from across Melbourne. The park is undergoing a major redevelopment which will further expand its appeal. It is expected that employment at the park will increase from around 50 to 500 and visitor numbers increase from 200,000 to 500,000.

Bunyip State Park, to the north of the study area, could also continue to be leveraged by the towns. The State Park offers camping, bushwalking, mountain bike riding, caving, abseiling and other outdoor activities. Already, recreation services are growing strongly, as identified in the Location Quotient.

It can be expected that with a growing Pakenham, visitors in pursuit of outdoor recreation will increase in the coming decades. Towns could take advantage of this as spots to drop in on the way by offering complementary services. The hospitality sector would be particularly relevant in this context.

It is important to note that proximity to bushland should not be a substitute for good quality green space in new suburbs. Rather, the bushland complements and serves as a destination.

4.15 Pakenham Racing Club Precinct

Since relocating to Tynong in 2014, the Pakenham Racing Club has established itself as a centre for equine related industries in the region. There is great potential for the Pakenham Racing Club to further develop into a vibrant and significant employment hub in the coming years. The area includes 42 acres for a range of planned commercial, retail, and hospitality uses including:

- Veterinary Centre/Hospital/Surgery/Research & Training Facility
- Produce Store/Saddlery/Hardware/Merchandise
- Horse Auction/Sales/Bloodstock Agent
- Recycled manure plant
- Horse Transport Depot
- Equestrian Arena
- Farrier
- Feed Merchant
- Training Academy / Educational Facility (TAFE/ RVL)
- Club/Gaming Facility
- Accommodation/Motel

If the businesses which locate in the precinct are in related industries which share labour markets and knowledge, it could support an emerging industry cluster. Clustered businesses benefit from knowledge spill overs and agglomeration economies. A cluster centred around Pakenham Racing Club precinct could catalyse significant economic development in the area.'

²⁵ SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

For discussion purposes



08 Community Infrastructure

Cardinia's Liveability Plan 2017 – 2029 states that in Cardinia Shire, local services and community group's will work together to ensure that residents can access appropriate and affordable services and facilities which promote and protect health and wellbeing throughout life. In the medium term, it is anticipated that there will be an increase in access to services and support close to home (Cardinia Shire's Liveability Plan 2017-29, Pg. 23).

In the context of small population numbers across the four railway towns, we note that the ASR 'Planning for Community Infrastructure in Growth Areas' ratios for community infrastructure are not entirely relevant but are considered to be "best practice" for community infrastructure planning. We have combined this assessment of community infrastructure with a consideration of triggers for health infrastructure adapted from a State Government Inquiry (Government of Victoria 2012 Outer Suburban/Interface Services and Development Committee 'Inquiry into Liveability Options in Outer Suburban Melbourne') to form a community and health infrastructure model that will inform Council of the population thresholds likely to be required before additional infrastructure (or refurbished infrastructure) is provided across the Railway Towns.

Using the existing community infrastructure audit shown in Chapters 4-7, Tract and K2 Planning have developed the below model for community and health infrastructure. Following discussions with relevant officers in Council's internal departments and upon review of other Council documents, it appears that in the context of a forecast population of 8,590 in total across all four towns by 2051, the 'local' community infrastructure levels and health infrastructure for less than 10,000 people is considered most relevant. As such, the health service for these smaller populations is really based around health promotion and disease prevention as opposed to primary/secondary care. For longer term planning purposes, the model also identifies the change in infrastructure requirements as the population increases in size.

Considering the towns as two pairs, that is Nar Nar Goon and Tynong + Garfield and Bunyip, we can start to consider the community infrastructure requirements as each pair moves towards a population of 10,000 people in the longer term based on an ultimate growth scenario.

Using the model in Table 1 below, and the infrastructure requirements for a 'local' centre, we offer the following observations:

Nar Nar Goon + Tynong

- Are well serviced by primary schools – Nar Nar Goon is serviced by a government primary school and Tynong is serviced by a private P-12 school.
- Nar Nar Goon is serviced by a kindergarten and MCH service – this is well located in the context of the town and is within close proximity to the local primary school. Whilst current demands for MCH services (one morning per week) appear to be being met, there may be scope to increase the frequency of this service in the future, or also to provide a dedicated MCH space in a larger community centre. There is also likely to be a need in the longer term to increase kindergarten places, based on local demographic trends and expected population growth up to 2051.
- There is an opportunity to provide dedicated community meeting spaces for health promotion programs including: meeting rooms for immunisations, spaces for running health promotion, illness prevention and social connection programs. The Tynong hall could be utilised for visiting services such as these on a regular basis.
- Alternatively, Council could consider the longer term option of a dedicated GP cluster/or 'spoke' level facilities in a 'hub and spoke' model in one of the two sets of towns. This model could also include mental health services, dental chairs, allied health services etc. This model would support the increased provision of health and wellbeing services in the railway towns as well as supporting increased outreach services from relevant community and health organisations currently operating elsewhere in the Shire of Cardinia or in neighbouring local government areas.

- Residents of Nar Nar Goon/Tynong would likely use the senior citizens centre in Pakenham, seniors services including medical services, community transport, digital access/support, government services offices, social support for seniors are all aspects which are under-represented in the railway towns. Given the emerging increase in older workers, pre-retirees, seniors and elderly, it is likely that increased space for these services is going to be required in the longer term.
- At the 2016 census, there was no social housing listed in NNG or Tynong, however Nar Nar Goon is listed as a 'preferred location' for housing on the Victorian Housing Register.

Garfield + Bunyip

- Are well serviced by primary schools with both towns providing a government school and Bunyip an additional catholic primary school.
- Both towns also provide kindergarten services however Bunyip has the benefit of a visiting MCH service (3 days per fortnight). There is likely to be a need in the longer term to increase kindergarten places, particularly in Bunyip based on local demographic trends and expected population growth up to 2051.
- Both towns are provided with good community hall facilities including a range of community centre/hall/auditorium/school hall/scout hall type facilities.
- There is an opportunity to provide dedicated community meeting spaces for health promotion programs including: meeting rooms for immunisations, spaces for running health promotion, illness prevention and social connection programs. The Garfield community centre and the Bunyip Hall could be utilised for visiting services such as these on a regular basis.
- Both towns are a part of the mobile library service that visits 1-2 times per week.
- Garfield currently operates a senior citizens centre which is well attended however seniors services including medical services, community transport, digital access/support, government services offices, social support for seniors are all aspects which are under-represented in the railway towns. Given the emerging increase in

older workers, pre-retirees, seniors and elderly, it is likely that increased space for these services is going to be required in the longer term.

- Bunyip currently has 0.5% social housing compared with 1% of Cardinia in 2016 – Bunyip is also listed as a 'preferred location' for housing on the Victorian Housing Register.

Whilst the towns operate as two 'sets' or even as one 'set', it is unlikely that the towns will prosper beyond the growth shown in the ultimate growth scenario without extensive rezoning and restructuring. At some point, in order for the towns to be 'serviceable' from an infrastructure perspective, major upgrades would be required and this would likely coincide with a significant increase in population (i.e. up to 10,000 people per set). Such population growth would likely result in the conurbation of the pairs to create two larger towns. Even if we continue to treat the towns individually (within a broader set), there would be advantages in considering community infrastructure provision that allows for greater population catchments to utilise the services required for a sustainable town.

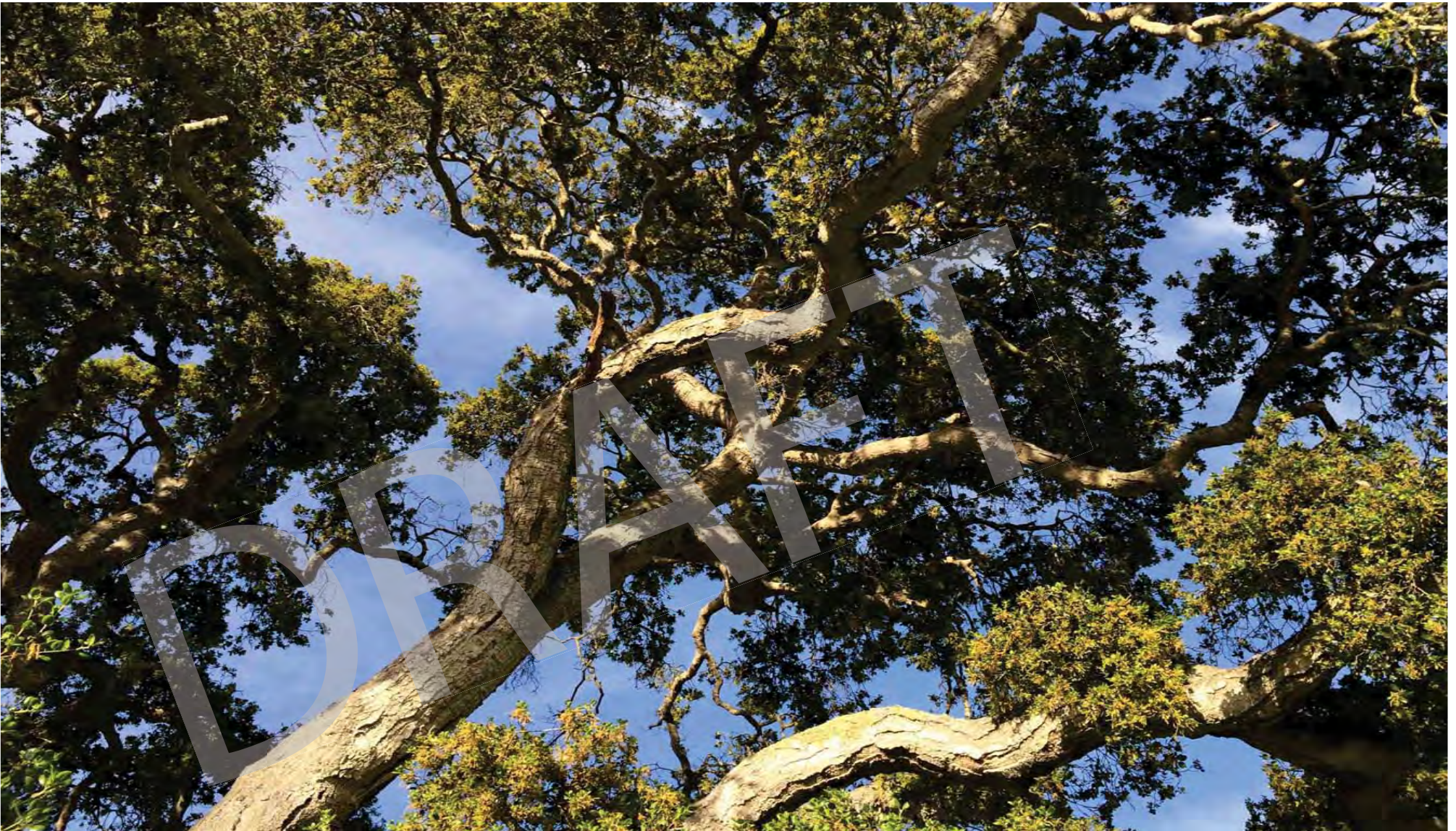
As such, the model in Table 4 below can be applied to future planning of the railway towns to ensure that population growth is sufficient to enable the longer term prosperity and social sustainability of the towns

This informs the additional community and health infrastructure outlined in the summary tables for each town.

Table. 4 Cardinia Railway Towns – A Model of Community and Health Infrastructure

Hierarchy Level		Infrastructure Type	
Community Infrastructure Levels (A)	Health Infrastructure Levels (B)	Community Infrastructure	Health Infrastructure
Local : Up to 10,000 people	N/A	Govt Primary School, including OSHC and early years facility Level 1 Community Centre/early years facility Long Day Care Centre Social Housing	Bike and walk infrastructure and programs Spaces for Health Prevention and Health Promotion programs Community Health Services Maternal and Child Health Centres Meeting room space for immunisations Spaces for Substance Abuse support programs ***Health promotion and illness prevention programs co-located with other community and health services

Source: K2 Planning - Adapted from Inquiry into Liveability Options in Outer Suburban Melbourne Outer Suburban/Interface Services and Development Committee 2012 and 'Planning for Community Infrastructure in Growth Areas' by Australian Social and Recreation Research Pty Ltd, April 2008



09 Nar Nar Goon

9.1 Summary

Preliminary findings from this strategic review have highlighted opportunities within Nar Nar Goon for some infill and some additional development as well as increased visitor and commercial patronage, leveraging off its status as a mural town. Despite its relatively small population, the town has good access to community infrastructure.

Streetscapes are wide and the roads are generally of good quality. The town will be part of the Pakenham Water Treatment Upgrade (2020) which will be integral in ensuring that any future development of this town is provided with appropriate infrastructure.

At present Nar Nar Goon lacks a strong town centre and is restricted on its western boundary by Green Wedge land which also maintains separation from Pakenham East and metropolitan Melbourne beyond. Given this, and the bisecting nature of the train line, growth to the south-east is a potential opportunity as well as some peripheral growth within the 10 or 20 minute catchment of the train station.

Future infill development is possible in Nar Nar Goon and is warranted to support further business and commercial growth to ensure appropriate local services are provided for residents. The function of the town centre into the future will continue to provide local services, as it is acknowledged those living within Nar Nar Goon likely commute to Pakenham for more specific retail needs, as well as professional employment opportunities.

Our analysis indicates that the new Pakenham Racecourse will also help provide an opportunity to support the current small town of Nar Nar Goon as it evolves into a larger service centre for visitors to the area and residents alike.

Population⁶

Nar Nar Goon is the second smallest of the four towns with a population of 1,013 in 2016 which is a small increase from 850 in 1996.

The growth rate of Nar Nar Goon averages out at approximately 0.9%. Nar Nar Goon's population as a proportion of Cardinia LGA total population decreased from 2% in 1996 to 1.2% in 2016. This is due to the rapid growth experienced in the Pakenham area. More specifically, the modest projected growth of Nar Nar Goon from 1,013 people in 2016 to 1,358 in 2051 is expected to occur within the town centre of Nar Nar Goon⁷.

Due to a lack of available information through the ABS for suburb level data, Nar Nar Goon and Tynong are grouped together in terms of demographic information. As such, this will be included in the Nar Nar Goon section of this report, and will not be duplicated for Tynong.

Age Structure

Between the years 2011 and 2016, Nar Nar Goon & Tynong have experienced significant changes to the population age structure⁸, which can be summarised as follows:

- A decrease in babies, pre-schoolers, primary and secondary school age groups when compared with Cardinia from 16.3-17.6%.
- An increase in the tertiary education and independent age groups (18-24) of 15.9%.

- A decrease in the parents and home builders group of 17%.
- An increase in older workers/retirees, empty nesters/retirees, seniors and elderly of 29.1%, 21.8%, 30.4% and 31.3% respectively.

The above numbers represent the percentage change in age groups between 2011 and 2016 however some groups are very small and any increase represents a larger percentage.

As such, please refer to the below bar chart which shows the significant changes in terms of numbers of people. Refer to **Figure 13**.

Limited Expansion of Nar Nar Goon

There is currently not a permanent UGB for Nar Nar Goon. Despite having a closer proximity to the metropolitan area than Bunyip and Garfield (which are both included in the UGB), the 2011 Logical Inclusions Advisory Committee did not include Nar Nar Goon within the metropolitan UGB. Whilst there was no clear discussion regarding the exclusion of Nar Nar Goon from the Committee, risk of inundation along the outer skirts of the town and bushfire risk for the areas beyond the main street and residential areas are noted as existing constraints to the town's growth. The lack of infrastructure to support a population expansion, and conversely, the low population to sustain the infrastructure and local services also limits the towns expansion and inclusion into the metropolitan UGB.

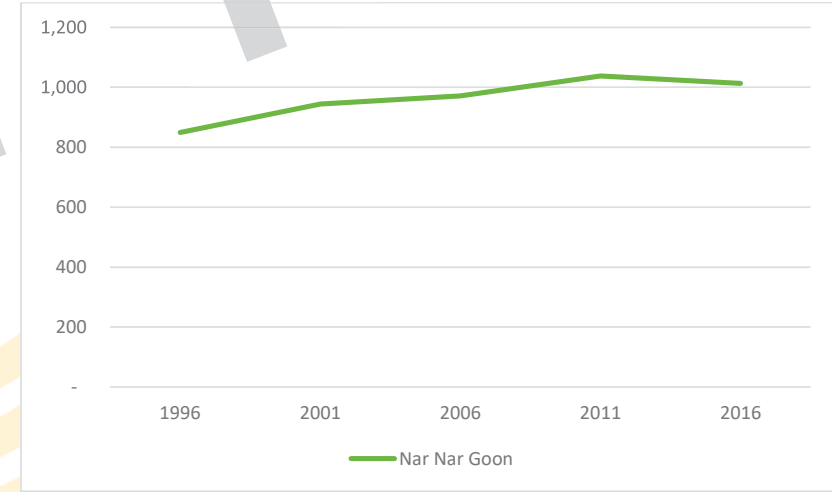


Fig. 13 Nar Nar Goon Population (SGS Economics, 2017)

⁶ SGS Economics and Planning, Cardinia Railway Towns - Economic Profile, September 2017
⁷ SGS Economics and Planning, Cardinia Railway Towns - Economic Profile, September 2017
⁸ Demographic data is produced by Profileid.com and are based on 2011 and 2016 census data



Demographics

Other key demographic facts⁹ for Nar Nar Goon-Tynong in 2016 include:

- The three largest ancestries were Australian (44% compared with 37.8% in Cardinia), English (40.8% compared with 39.1% in Cardinia) and Irish (12.4% compared with 10.1% in Cardinia).
- 84.9% of the population were born in Australia, compared with 74.8% in Cardinia.
- 93.7% of the population speak English only, compared with 83.2% of Cardinia.
- The predominant religions are Catholic (26.3% compared with 21.7% of Cardinia), Anglican (17.4% compared with 12.4% of Cardinia) and Uniting Church (5.4% compared with 3.4% of Cardinia). It should however be noted that the number of Christians experienced the greatest change between 2011 and 2016 compared to the non-religious and non-Christians.
- 9.1% of Nar Nar Goon-Tynong residents have a bachelor or higher degree education, compared with 13.8% of Cardinia and 27.8% have a vocational qualification, compared with 25.3% of Cardinia.
- A higher number of residents in Nar Nar Goon-Tynong (44.6%) have no qualification, compared with 41.5% of Cardinia.
- 3% of Nar Nar Goon-Tynong require assistance with core activities due to disability, compare with 4.2% of Cardinia.
- Nar Nar Goon-Tynong has a higher employment rate 96% compared with Cardinia (94.5%) as well as lower unemployment rates 4% versus 5.5% (Cardinia).
- Nar Nar Goon-Tynong is predominantly a car-based town with 67.6% of residents driving a car as their main method of travel, compared with 70.9% of Cardinia. 3.4% are passengers in a car (compared with 4.1% of Cardinia) 3% who walked only (compared with 1.3% of Cardinia) and 3.8% who caught the train (compared with 5.2% of Cardinia).
- Similarly, Nar Nar Goon-Tynong has a lower car ownership rate of 1 or 2 cars compared with Cardinia, but a higher rate of 3 or more vehicles (38.4% compared with 23.7%).
- More residents in Nar Nar Goon-Tynong work from home (8.3%), compared with 4.9% in Cardinia.
- A higher proportion of residents in Nar Nar Goon-Tynong undertake volunteering roles (20.6%) compared with Cardinia (18.2%).
- Overall, 18.5% of the households earned a high income and 12.8% were low income households, compared with 18.1% and 14.1% respectively for Cardinia Shire.
- A higher number of couples without children (26.4%) compared with 24% in Cardinia and a lower number of one parent families (8.3%) compared with 11.8% of Cardinia and a higher number of group households (3.0% compared with 2.2%).
- The most dominant housing size is 2 persons (32%) compared with 31% in Cardinia. There are also more larger households (5+ persons) compared with Cardinia.
- In Nar Nar Goon - Tynong, 72% of households were purchasing or fully owned their home, 19.1% were renting privately, and 0.0% were in social housing in 2016. In comparison to Cardinia Shire whereby 70% were purchasing or fully owned their home, 21.8% renting and 1.0% were in social housing.
- In Nar Nar Goon-Tynong, 5% of the dwellings were medium or high density, compared to 8% in Cardinia Shire.
- Between the years of 2011 and 2016, the total number of dwellings in Nar Nar Goon-Tynong has increased by 22 (from 520 to 541).

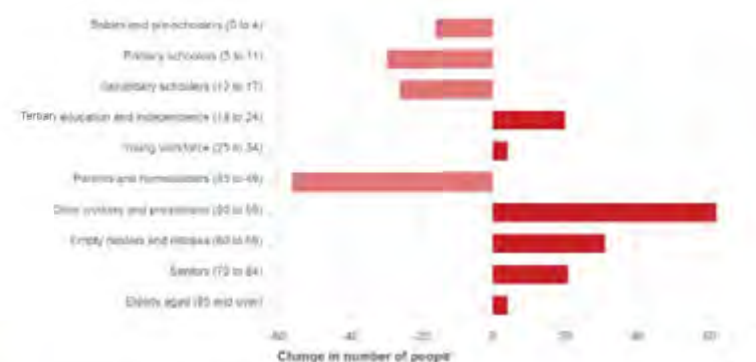
- 80.7% of dwellings have internet connection in Nar Nar Goon-Tynong which is lower than Cardinia (82.7%).
- Nar Nar Goon-Tynong has a SEIFA ranking of 1,016 which places it in the 55th percentile, meaning that approximately 55% of Australian suburbs have a SEIFA index lower than this area (i.e. more disadvantaged), while 45% are higher.

Demographic Summary for Nar Nar Goon and Tynong

In 2016, Nar Nar Goon had a population of 1,013 and Tynong 747. Early retirees/empty nesters are increasing whilst the number of babies and preschoolers and people aged 35-49 have been declining. Residents are mostly born in Australia and over 90% are of Australian, English or Irish ancestry and speak only English. Most residents identify as Catholic, Anglican or Presbyterian denomination. A high proportion of residents are employed and approximately 8% of residents work from home. Nar Nar Goon and Tynong are predominantly car-based towns with more than half of the residents driving a car as their main method of travel. Most residents own or are purchasing their home and there is no social housing provided across the two towns. 32% of households have only two people and larger households are relatively low when compared to the Cardinia average.

Change in age structure - service age groups, 2011 to 2016

Nar Nar Goon - Tynong - Total persons



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 and 2016 (usual residence data). Downloaded and presented by ProfileID, an IDA associated company.

id
the population
experts

Fig. 14 Change in Age Structure Nar Nar Goon- Tynong, 2011 - 2016 (Profile ID)

⁹ Demographic data is produced by ProfileID.com and are based on 2011 and 2016 census data

Employment

Employment¹⁰ in Nar Nar Goon is dominated by the education/training agriculture, forestry and fishing industries. Refer to Figure 15. The education/training, industry is likely associated with horse training and the cluster of training stables located in the area. There are related businesses and activities such as a pony club and equestrian centre being located in Nar Nar Goon. In terms of agriculture, this industry has almost halved from between 2001 and 2016 however this is similar to the Australia-wide decrease in the prominence of agriculture to the economy and the increasing character of the town as peri-urban rather than regional.

It is noted that in using the ABS state suburbs (SSC) boundary for Nar Nar Goon, that this includes the north western corner of Nar Nar Goon between the Princes Hwy and the Princes Fwy and bordered by Mount Ararat Road South (on the east) and is within the Urban Growth Boundary as part of the Pakenham East PSP. This area is expected to experience significant growth as a result and has been excluded from this study. Refer to **Figure 16**.

10 SGS Economics and Planning, Cardinia Railway Towns - Economic Profile, September 2017

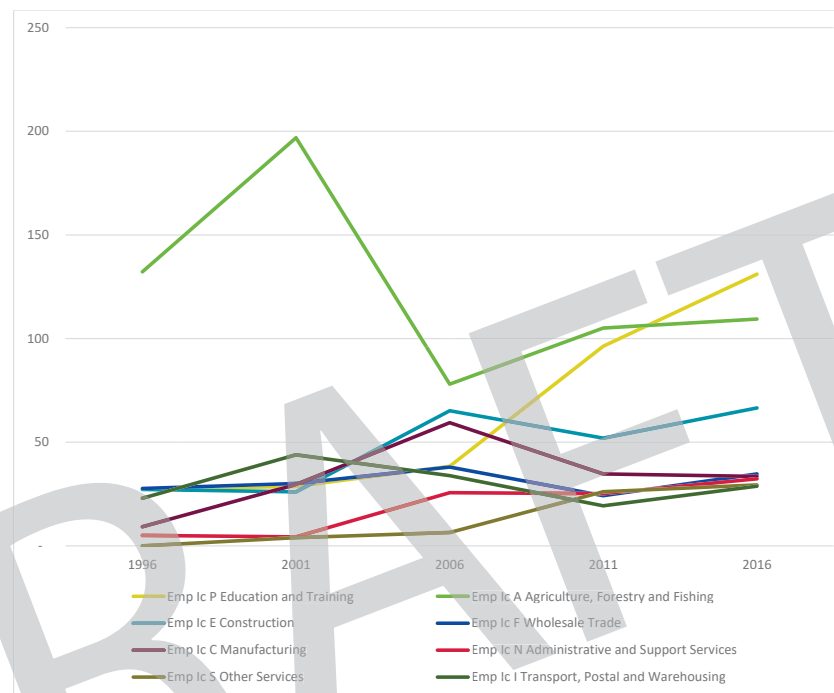


Fig. 15 Employment Profile Nar Nar Goon (SGS Economics)



Fig. 16 Study Area - Excluded Portion of Nar Nar Goon

9.2 Current Planning Controls¹¹

Nar Nar Goon does not currently have a designated UGB which indicates that growth is not anticipated beyond the existing township lots. Land surrounding the existing township area is zoned Green Wedge Zone (Schedule 1).

Unlike the other railway towns, Nar Nar Goon is largely developed along the southern side of the railway line with the Commercial town centre split across both sides. In particular, the Nar Nar Goon Hotel, post office and mechanic is situated on the northern side, with the local shops and fire brigade on the southern side. The land immediately adjoining the Commercial 1 Zoned land is Neighbourhood Residential Zone whereby minimal growth is envisaged.

A large portion of the town is zoned Low Density Residential (Schedule 2) with a minimum subdivision of 0.4 hectares. This zone extends along Nar Nar Goon Road along the northern side of the railway line to Main Street on the southern side. A Design and Development Overlay (DD01) also covers these areas and seeks to ensure an attractive low-density environment which has regard to the environmental features and constraints of the land and the existing pattern of subdivision in the area.

The local primary school is zoned Public Use Zone (Schedule 2) whilst the reserve south of the Commercial 1 Zone covers the kindergarten, playground and reserve (Schedule 6).

There are a series of other heritage overlays across Nar Nar Goon, including:

- Nar Nar Goon North Hall (H0225);
- Commercial Bank of Australia (H083);
- St James Catholic Church (H039); and
- St James Church of England (H0114).

The Low Density Residential Zoned (LDRZ) land to the north and south of the town centre is also affected by the Vegetation Protection Overlay (VP01) which seeks to protect and conserve existing vegetation.

A narrow area of land along Railway Avenue is affected by an Environmental Significance Overlay (ESO3) which relates to 'Other Significant Sites' and identifies a site that is considered to be of botanical and zoological significance as they contain rare, endangered, or uncommon species of plants and animals. ESO3 continues the extent between Nar Nar Goon and Tynong.

Small wedges of land on the southern side of the railway line and on the northern side (between Nar Nar Goon and Tynong) is affected by a Land Subject to Inundation Overlay which is deemed to be affected by 1 in 100 year floods, as well as small sections on the north western side of the railway line.

All land within Nar Nar Goon is identified as Bushfire Prone Areas (State Gov Mapping).



¹¹ All zoning and overlays controls have been sourced from Department of Environment, Land, Water and Planning (DELWP)

For discussion purposes

Fig. 17 Zoning Map



Fig. 18 Overlay Map



Fig. 19 Environmental Map

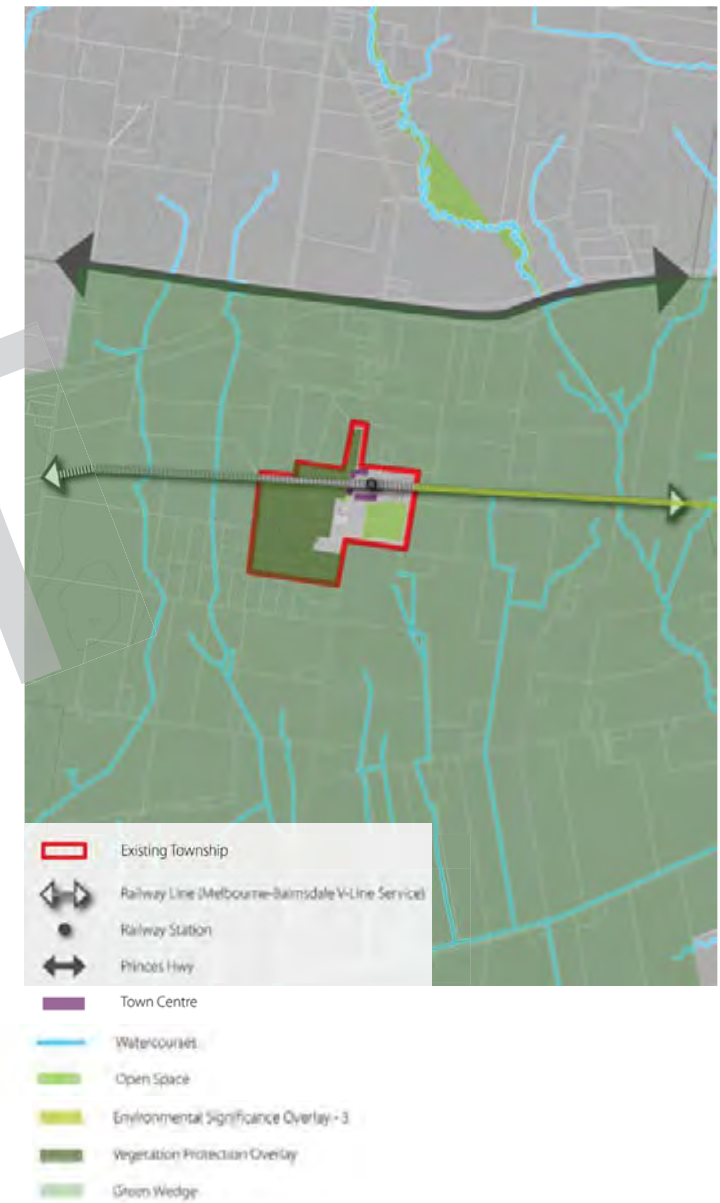
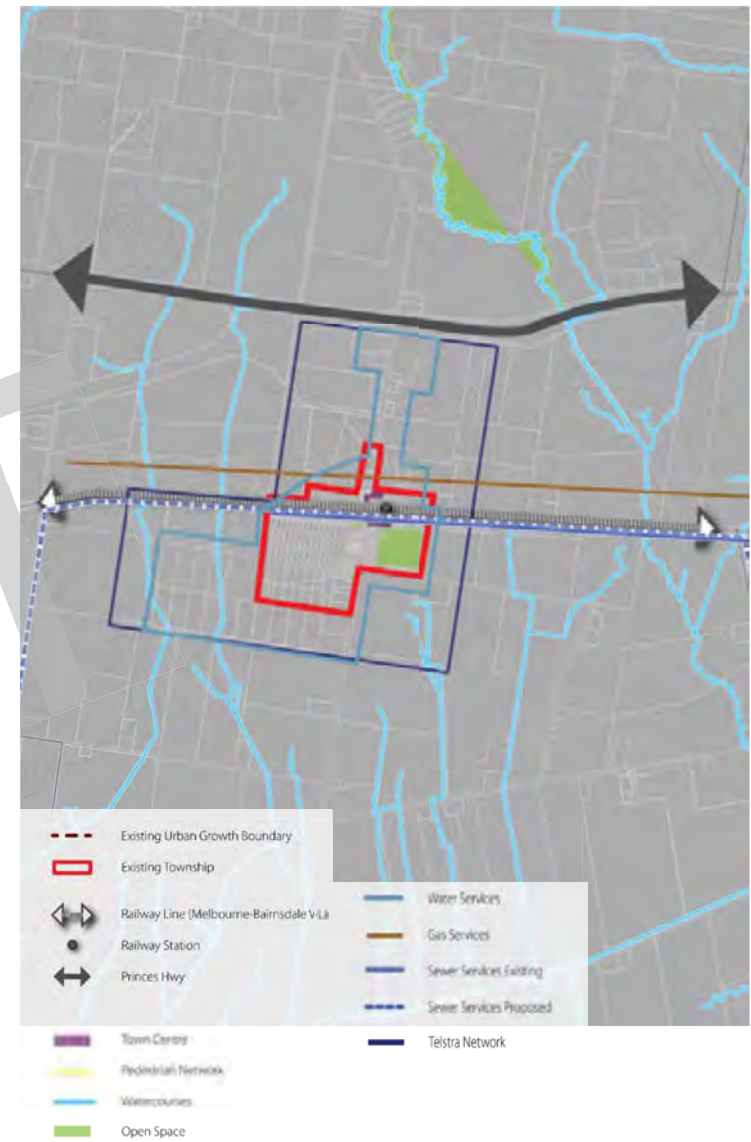


Fig. 20 Accessibility Map



Fig. 21 Services Map



9.3 Accessibility

Nar Nar Goon is segregated by the railway line which dissects the town into north and south portions. Nonetheless, the existing township is highly walkable with all essential services provided within a 10 minute walk including the train station, shops, local community facilities and open space.

A bus operates between Pakenham Station to the west and Traralgon to the east (and stops at each of the railway towns).

The town has a single vehicular railway crossing through that town centre which limits connectivity through the township.

9.4 Community Services and Facilities

Considering its small size and relatively small population, Nar Nar Goon has good access to community facilities, including education, open space and other facilities. Refer to **Table 4**.

It is noted that the Catholic Education Office is considering Nar Nar Goon for a secondary school however the timing of this is currently unknown.

Table.5 Nar Nar Goon Community Services and Facilities

Type	Facilities	Address
Education		
Kinder & Maternal Child Health	Kinder & Maternal Child Health	13 Mair St, Nar Nar Goon
Nar Nar Goon Primary School		27-35 Spencer St, Nar Nar Goon
St James Primary		60 Nar Nar Goon Rd
Community Facilities		
Nar Nar Goon Mobile Library		NNG Primary School at Thursdays 11am - 12pm
CFA Fire Brigade		9 Carney St, Nar Nar Goon
Nar Nar Goon Soldiers Memorial Community Complex		Spencer St, Nar Nar Goon
Open Spaces / Reserves		
Nar Nar Goon Recreation Reserve	- Tennis courts - Cricket - Football - Netball - Community centre - Football club rooms - Scouts - BMX track	Spencer St, Nar Nar Goon
Nar Nar Goon Township Reserve	- Playground - Shelters - Picnic Area	9-11 Seven Mile Rd
Community Groups		
Nar Nar Goon Progress Association		
Nar Nar Goon Scouts		
Nar Nar Goon RSL		
The Goon News		

Fig. 22 Community Infrastructure Map



For discussion purposes

Table. 6 Nar Nar Goon Summary Table	
Current	
Population 2016 Census	1,013
Annual growth rate	0.9%
Existing infrastructure and services	1 x Nar Nar Goon Railway Station (V-line) 1 x Kinder & Maternal Child Health 2 x Primary School (Nar Nar Goon Primary School and St James Primary School) 1 x Mobile Library Services 1 x CFA Fire Brigade 3 x Recreational reserve (Soldiers Memorial Community Complex, Nar Nar Goon Recreation (tennis, cricket, football, netball and community centre) and Nar Nar Goon Township Reserve (playground, shelter and picnic) 1 x Bus routes to Pakenham Station and Traralgon Basic shops and services (Takeaway shop, café, hotel, two automotive repair shops and Australia Post) Telecommunications, electricity and gas services Low pressure sewerage mains and limited pipe water supply
Future	
Low Growth Scenario (100-150 hectares)	Vision: Small rural township with boutique retail and food offerings and outdoor recreational activities for visitors. Population: Approximately 2,500 people Residential lots: Approximately 250 to 350 lots Land Zones: Limited rezoning of green wedge land to residential land to the east and west of Nar Nar Goon. Maximum of 200 metres from existing town centre boundary. No rezoning north or south of Nar Nar Goon.
Ultimate Growth Scenario (250-300 hectares)	Vision: Small rural township with boutique retail and food offerings and outdoor recreational activities for visitors. Manufacturing and equine employment and community services and schools. Population: Approximately 5,000 people (or a total of 10,000 people across Nar Nar Goon and Tynong) Residential lots: Approximately 650 to 750 lots Land Zones: Rezoning of green wedge land to the north, east and west of Nar Nar Goon to a residential zone. Minimum rezoning to the south of Nar Nar Goon to residential use.
Limitations for growth	Maintain green wedge buffer between Pakenham East, Tynong and the Princes Highway. Land Subject to Inundation Overlay south of Nar Nar Goon Bush fire risk Limited water and sewerage infrastructure - upgrade required under ultimate growth scenario
Community and health infrastructure required for Ultimate Growth Scenario. Note: Infrastructure shared between Nar Nar Goon and Tynong.	Community centre/early years centre Long day care centre Social Housing Spaces for Health Prevention and Health Promotion programs, including substance abuse support programs and illness prevention programs Meeting room space for immunisations Additional vehicle and pedestrian connections across the railway line Additional shops, including small scale supermarket and services close to the railway station Water and sewer system upgrades - funded through residential development contributions
Key Actions for Nar Nar Goon	Preparation of a Township Strategy Application of an Urban Growth Boundary Investigate Development Contribution planning mechanism to facilitate future public infrastructure



10 Tynong

10.1 Summary

The new Pakenham Racecourse is poised to provide extensive support to Tynong through construction jobs, housing and ongoing employment opportunities associated with the horse racing industry. The intention however for this horse racing precinct is that it will be self sufficient by way of accommodation, employment, services etc., Specific to the industry.

Tynong is split by the rail line and lacks a consolidated town centre. The general store and post office are the only services for residents. The main function of Tynong is to provide housing which is offered on a range of allotment sizes. The Pakenham Racecourse and the private St Thomas Aquinas College are the town's key current assets.

Despite its small population, the town accommodates St Thomas Aquinas (Prep-12) school as well as a large reserve and a town hall.

Township character and the proximity to employment opportunities at Pakenham East; and expanded retail offerings in Bunyip make this an attractive town for peri-urban residents as 'tree-changers'. Permanent employees who reside within the racecourse precinct will create a new demand for supporting services and facilities within the town, as will punters attending race day events. A modest increase in residential supply would help to underpin the local provision of small scale retail needs.

There is not currently a permanent UGB for this town, however all land south of the Nar Nar Goon-Longwarry Road is subject to inundation and the town as a whole is subject to bushfire risk.

Population¹²

Tynong is the smallest of the four towns with a population of 747 in 2016 which has only marginally increased since 1996 (from 630 in 1996). This averages out of an annual growth rate of 0.9% per year. Tynong's population as a proportion of Cardinia LGA total population decreased from 1.5% in 1996 to 0.9% in 2016.

Tynong's population is forecast to increase from 747 to 1002 in 2051.

Due to a lack of available information through the ABS for suburb level data, Nar Nar Goon and Tynong are grouped together in terms of demographic information. As such, this has been included in the Nar Nar Goon section of this report, and will not be duplicated for Tynong.

Limited Expansion of Tynong

There is currently not a permanent UGB for Tynong. Despite having a closer proximity to the metropolitan area than Bunyip and Garfield (which are both included in the UGB), the 2011 Logical Inclusions Advisory Committee did not include Tynong within the metropolitan UGB. Whilst there was no clear discussion regarding the exclusion of Tynong from the Committee, risk of inundation along the outer skirts of the town and bushfire risk for the areas beyond the main street and residential areas are noted as existing constraints to the town's growth. The lack of infrastructure to support a population expansion, and conversely, the low population to sustain the infrastructure and local services also limits the towns expansion and inclusion into the metropolitan UGB. The proximity of Tynong to the newly established Pakenham Race Course may drive up the demand for basic services, shops and supporting infrastructure.

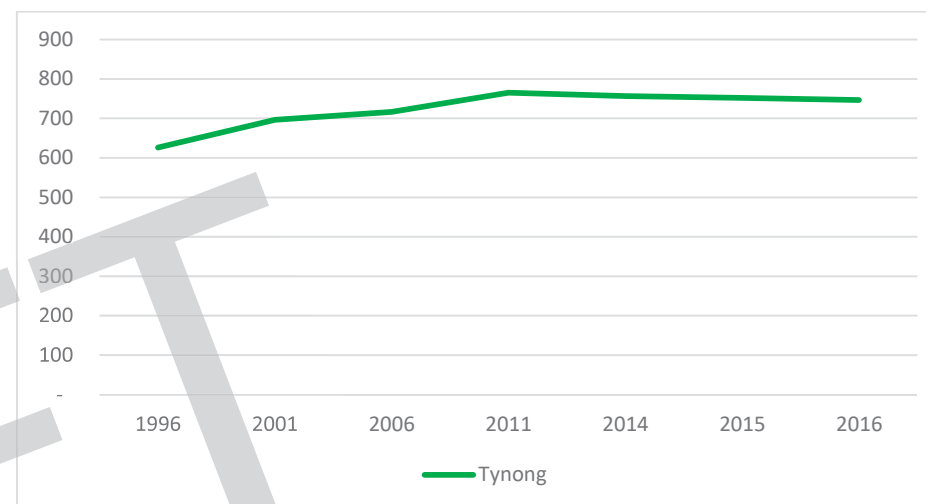


Fig. 23 Population change for Tynong (SGS Economics, 2017)

Demographic Summary for Tynong

The demographic summary for Tynong is provided in the demographic summary provided for Nar Nar Goon.

¹² SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

Employment¹³

Whilst employment numbers grew in all towns between 1996 and 2016, Tynong had the weakest growth of 2.3%. Nonetheless, Tynong has established a large construction industry over the recent years which are likely associated with the Pakenham Racing Club relocating to Tynong which has been a major catalyst for economic development in the area. Refer to Figure 23. The racing club itself includes racing tracks; training areas, retail floor space, commercial, hospitality and entertainment uses.

13 SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

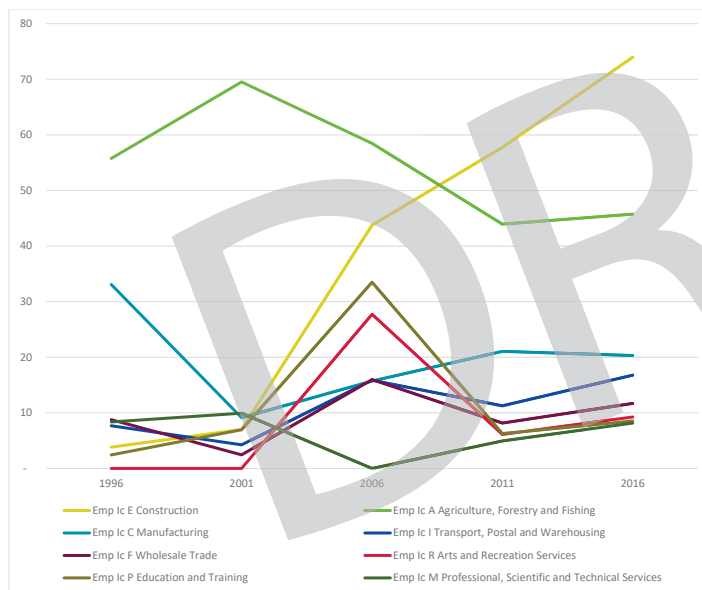


Fig. 24 Employment Profile Tynong (Source: SGS Economics, 2017)

As such, employment in Tynong is currently dominated by the construction sector however in forecasting to 2051, it is expected that the number of jobs in Tynong will increase from 213 to 377 by 2051 and these jobs will be concentrated around the construction, warehousing, professional services and education sectors.

10.2 Current Planning Controls¹⁴

Tynong does not have a designated Urban Growth Boundary which indicates that urban growth is not anticipated beyond the existing township areas

A large wedge of land on the northern side of the railway line (as well as a smaller strip on the southern side of the railway line) is zoned Low Density Residential (LDR22) whereby the minimum subdivision is 0.4 hectares. A Design and Development Overlay (D001) also covers these areas and seeks to ensure an attractive low density environment which has regard to the environmental features and constraints of the land and the existing pattern of subdivision in the area.

Tynong has an extensive area of land zoned Special Use Zone (SUZ3) which relates to the Tynong Racecourse and Training Facility (approximately 200 hectares). The purpose of this zone is to provide use and development relating to the racecourse, including horse stables and training facilities, dwellings which are located and used in conjunction with horse training facilities and stables and co-location of other uses legitimately connected or operating in conjunction with these pursuits.

Land on the northern side of the railway line at No. 1-17 Tynong Road, Tynong (approximately 14 hectares) is also zoned Special Use Zone (SUZ6) which relates to a 'Private Education Facility'. This is the location of 'St Thomas Aquinas College'.

The town centre and main street area is zoned Mixed Use Zone and is "book-ended" by Neighbourhood Residential Zoned land (NRZ1) which seeks to limit development to single and double storey dwellings whilst respecting neighbourhood character. A large area of Public Park and Recreation Zone is located on the southern side of the railway line (Tynong Recreation Reserve) along with two Public Use

Zones which relate to the Tynong Fire Brigade and Community Hall.

There are a series of other heritage overlays across Tynong, including:

- Bunya Bunyas (HO26);
- Killary (HO89);
- Vaughan and Lodge Tynong Quarry (HO107);
- Tynong General Store and Stock Feed (HO240);
- Buna Bunya (HO124);
- Waterhousea Floribunda (HO123); and
- Chestnut Oak (HO267).

The Low Density Residential Zoned land to the north and south of the town centre is also affected by the Vegetation Protection Overlay (Schedule 1) which seeks to protect and conserve existing vegetation.

Land between the Highway and the railway line is affected by an Environmental Significance Overlay which relates to the 'Northern Hills' area deemed to have significant landscape and environmental values. In addition to this, a narrow area of land along Railway Avenue (ES03) relates to 'Other Significant Sites' and identifies a site that is considered to be of botanical and zoological significance as they contain rare, endangered, or uncommon species of plants and animals. ES03 continues the extent between Nar Nar Goon and Tynong.

All land on the southern side of the railway line between Chippendale Road and Gillespie Road is affected by a Land Subject to Inundation Overlay which is deemed to be affected by 1 in 100 year floods, as well as small sections on the north western side of the railway line.

In addition to the above, there is a large parcel of land to the north east of the Tynong township affected by the Bushfire Management Overlay whereby the bushfire hazard warrants bushfire protection measures be implemented. All land outside of the main township is also identified as Bushfire Prone Areas (State Gov Mapping).

14 All zoning and overlays controls have been sourced from Department of Environment, land, Water and Planning (DELWP)

Fig. 25 Zoning Map



Fig. 26 Overlay Map



Fig. 27 Environmental Map



10.3 Accessibility

Tynong is largely developed along the northern side of the railway line with two small shops and most dwellings located to the north. Whilst some growth has occurred along the southern side of the railway line, this is largely limited to smaller dwellings.

Using the 10 minute walking radius, a large portion of the existing township is within walking distance to the town centre, with the exception of the north western corner (along Tynong road).

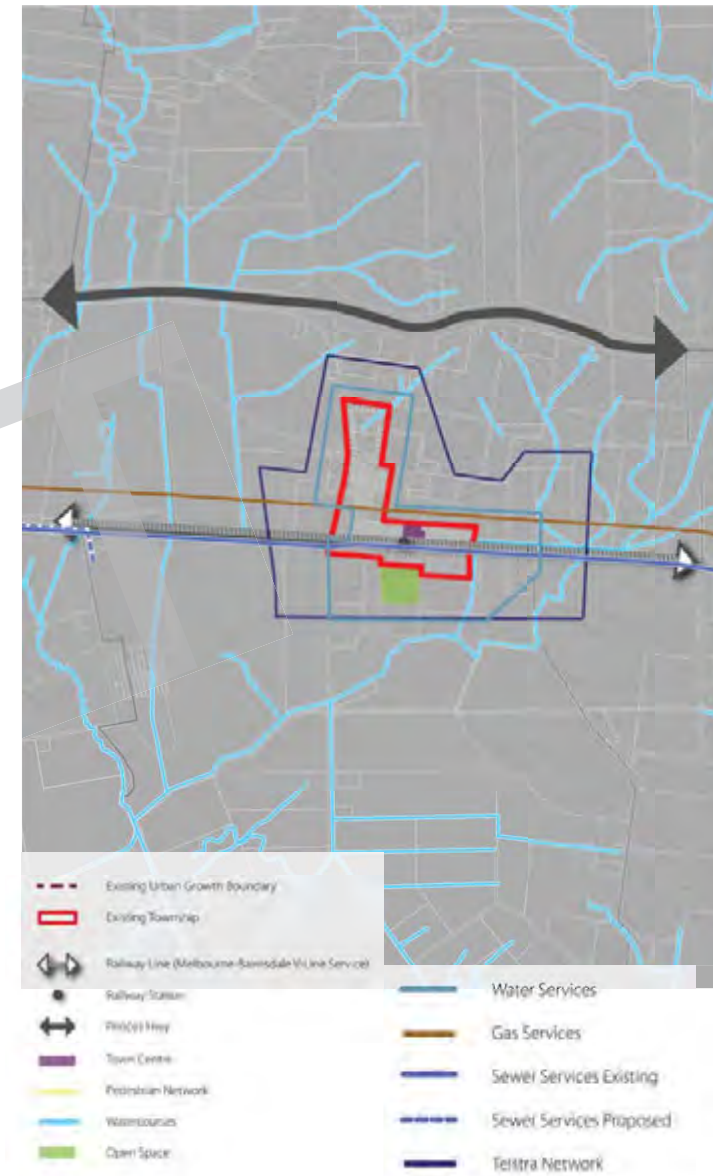
The area south of the railway line has good access to the town centre but is limited by way of servicing and a single railway crossing.

The town is well serviced by the Gippsland train line (V/Line) which regularly runs between Melbourne and Tynong. Buses also operate between Pakenham and Traralgon.

Fig. 28 Accessibility Map



Fig. 29 Services Map

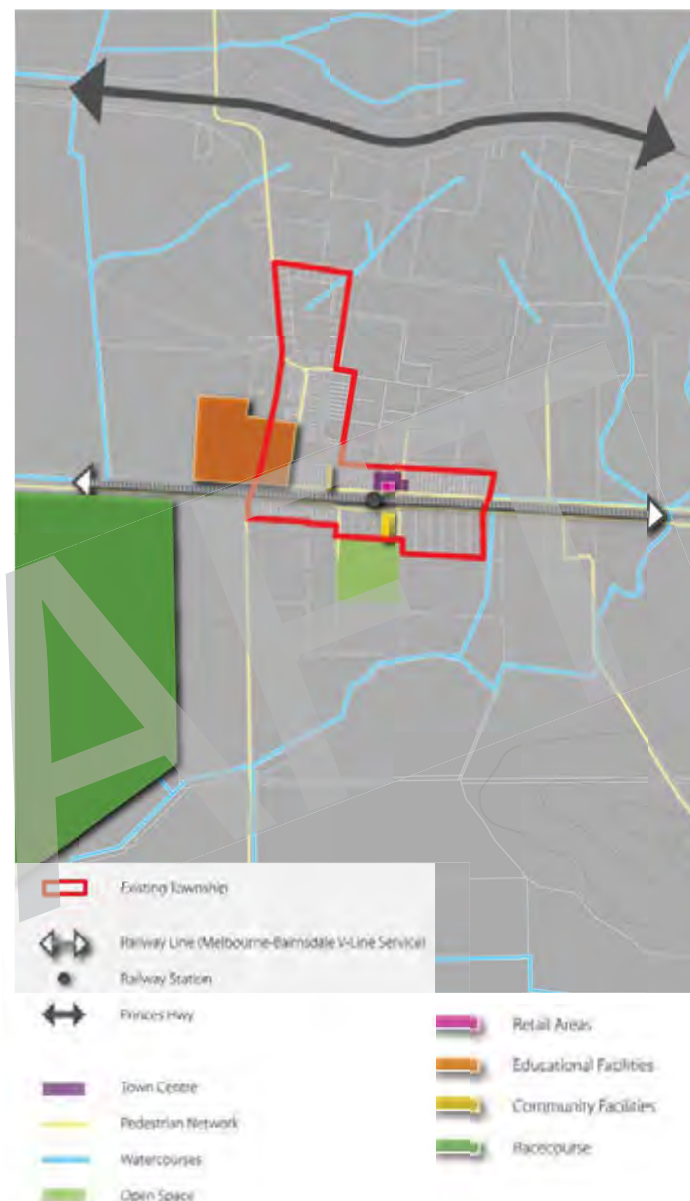


10.4 Community Services and Facilities

Table. 7 Tynong Community Services and Facilities

Type	Facilities	Address
Education		
St Thomas Aquinas College (P-12)- Tynong	P-12 Catholic School	1 Tynong Rd, Tynong
Community Facilities		
Tynong Mobile Library	Mondays: 3:30pm-5:30pm	Railway Avenue
Tynong Public Hall	Hall for hire	18 Railway Avenue, Tynong
CFA Fire Brigade		47 Nar Nar Goon-Longwarry Rd, Tynong
Open Spaces / Reserves		
Tynong Town Park	- Playground - Shelters - Picnic shelters - BBQ	Railway Avenue
Tynong Recreation Reserve	- Playground - Cricket/Football ovals - Tennis courts - Pavilions - Sheiters/seating	Park Road, Tynong
Community Groups		
Tynong Tabloids		
Tynong Progress Association		

Fig. 30 Community Infrastructure Map





For discussion purposes

Table. 8 Tynong Summary Table

Current	
Population 2016 Census	747
Annual growth rate	0.9%
Existing infrastructure and services	1 x Tynong Railway Station (V-line) 1 x School Prep -12 (St Thomas Aquinas College) 1 x Mobile Library 1 x Public Hall 1 x CFA Fire Brigade 1 x Town Park (playground, BBQ and picnic area) 1 x Public Hall (playground, cricket, football, tennis courts, pavilions) 1 x Pakenham Racecourse Telecommunications, electricity and gas services Low pressure sewerage mains and limited pipe water supply
Future	
Low Growth Scenario (100-150 hectares)	Vision: Small rural township with boutique retail and food offerings and outdoor recreational activities for visitors. Population: Approximately 2,500 people Residential lots: Approximately 250 to 350 lots Land Zones: Limited rezoning of green wedge land to residential land to the east and west of Tynong. Maximum of 200 metres from existing town centre boundary. No rezoning north or south of Tynong.
Ultimate Growth Scenario (250-300 hectares)	Vision: Well serviced rural town and growth of construction, warehousing, education and professional jobs and housing associated with the horse racing industry (Pakenham Racecourse). Population: Approximately 5,000 people (or a total of 10,000 people across Nar Nar Goon and Tynong) Residential lots: Approximately 700-800 lots Land Zones: Rezone existing residential land to achieve higher residential density in town centre. Rezone green wedge land to the east, west and south from the railway station). Potential rezoning of land to industrial and commercial south of Tynong, adjacent to Pakenham Race course. Investigate Development Contribution planning mechanism to facilitate future public infrastructure.
Limitations	Maintain green wedge buffer between Nar Nar Goon, Garfield and Princes Highway. Bush fire risk Land Subject to Inundation Overlay (flooding) south of Tynong. Further investigation required. Limited water and sewerage infrastructure - upgrade required to achieve Ultimate Growth Scenario.
Community and health infrastructure required for Ultimate Growth Scenario. Note: Infrastructure shared between Nar Nar Goon and Tynong.	Community Centre/early years facility Long day care centre Social Housing Spaces for Health Prevention and Health Promotion programs, including Substance Abuse support programs Meeting room space for immunisations Additional shops, including small scale supermarket and services close to the railway station Water and sewer system upgrades
Key actions for Tynong	Preparation of a Township Strategy Application of an UGB boundary Investigate Development Contribution planning mechanism to facilitate future public infrastructure Investigate relocation of Tynong Railway Station closer to Tynong Road intersection Investigate drainage and flooding south of Tynong Improve connection to Pakenham Racecourse



11 Garfield

11.1 Summary

Of the four Railway Towns, Garfield is the town with the most consolidated development pattern. Whilst the linear town centre is situated along the southern side of the railway, residential development has primarily occurred to the north, where the topography undulates and provides views south over farmland and beyond toward South Gippsland. All land on the southern side of the railway line (beyond the shopfronts along Nar Nar Goon- Longwarry Road) is subject to inundation. A significant constraint to mobility within the town is created by the railway line and the limited number of over or under passes. Additional, north-south links would better connect the retail and residential precincts.

The town centre is well developed with a range of retail opportunities identified in the Cardinia Planning Scheme. In particular, the Garfield Commercial Precinct is significant for its heritage value. The intact heritage cinema is a drawcard for residents and 'out-of-towners'.

The town is also well served by community infrastructure, including a kindergarten, primary school, recreation reserves, senior citizens centre, scouts, auditorium and community centre.

Future growth of Garfield is at present constrained by the urban growth boundary and the majority of the town being located on the northern side of the railway line. The town and highly developed residential area to the north of the railway line has limited bushfire risk.

Population ¹⁵

Garfield is the second largest of the four towns with a population of 1,431 people, up from 1,100 in 1996 and growing at an average annual rate of 1.3 % over this time, second to Bunyip.

The growth of Garfield from 1,431 people in 2016 is forecasted to reach 2,261 in 2051. This shows that Garfield is growing at an average annual rate of 1.3% over this time, the fastest of all the towns. As with the other towns, Garfield's population as a proportion of Cardinia LGA total population decreased from 2.6% in 1996 to 1.6% in 2016. This is due to the rapid growth experienced in the Pakenham area.

Age Structure

Between the years 2011 and 2016¹⁶, Garfield has experienced significant changes to the population age structure, which can be summarised as follows:

- A decrease in babies, pre-schoolers, primary and secondary school age groups when compared with Cardinia.
- An increase in the tertiary education/ independent age groups (18-24) of 11.5% and the young workforce (25-34) of 22.7%.
- A decrease in the parents and homebuilders group of 13%.
- A significant increase in older workers and pre-retirees which for the area has increased from 11.4% in 2011 to 16.1% in 2016 compared with Cardinia at 8.7% in 2011 and 8.9% in 2016.
- An increase in seniors (70-84) in the area of 54% and elderly of 59%.

The above numbers represent the percentage change in age groups between 2011 and 2016 however some groups are very small and any increase represents a larger percentage. As such, please refer to Figure 29 which shows the significant changes in terms of numbers of people.

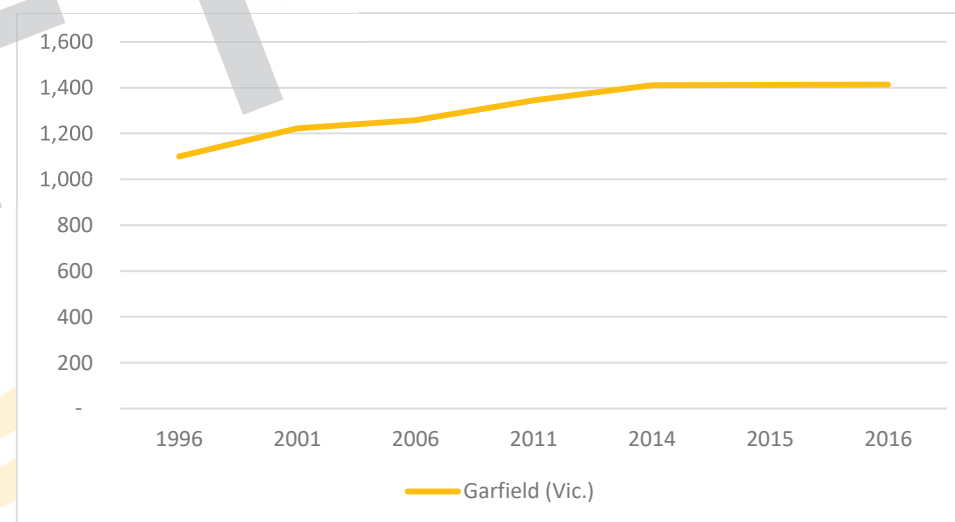


Fig. 31 Population Change for Garfield (Source: SGS Economics, 2017)

¹⁵ SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

¹⁶ Demographic data is produced by Profileid.com and is based on 2011 and 2016 census data

Demographics

Other key demographic facts¹⁷ for Garfield in 2016 include:

- As with the other towns, the three largest ancestries were Australian (46.9% compared with 37.8% in Cardinia), English (36.6% compared with 39.1% in Cardinia) and Irish (12.9% compared with 10.1% in Cardinia).
- 83.1% of the population were born in Australia, compared with 74.8% in Cardinia.
- 89.2% of the population speak English only, compared with 83.2% of Cardinia.
- The predominant religions are Catholic (32.9% compared with 21.7% of Cardinia), Anglican (11.6% compared with 12.4% of Cardinia) and Uniting Church (4.2% compared with 3.4% of Cardinia). It should however be noted that the number of non-religious persons experienced the greatest change compared to Christians and non-Christians in 2016.
- 10.7% of Garfield residents have a bachelor or higher degree education, compared with 13.8% of Cardinia and 27.3% have a vocational qualification, compared with 25.4% of Cardinia.
- 42.1% of residents have no qualification, compared with 41.5% of Cardinia.
- 3.4% of Garfield residents require assistance with core activities due to disability, compare with 4.2% of Cardinia.
- Garfield has a higher employment rate 96.9% compared with Cardinia (94.5%) as well as lower unemployment rates, 3.1% versus 5.5%.

- Garfield is predominantly a car-based town with 65.7% of residents driving a car as their main method of travel, compared with 70.9% of Cardinia. 2.1% are passengers in a car (compared with 4.1% of Cardinia, 2.2% who walked only (compared with 1.3% of Cardinia) and 4.7% who caught the train (compared with 5.2% of Cardinia). Similarly, Garfield has a lower car ownership rate of 1 or 2 cars compared with Cardinia, but a higher rate of 3 or more vehicles (38.4% compared with 23.7%).
- More residents in Garfield work from home (8.3%), compared with 4.9% in Cardinia.
- A higher proportion of residents in Garfield undertake volunteering roles (24.8%) compared with Cardinia (18.2%).
- Overall, 17.6% of the Garfield households earned a high income and 16.7% were low income households, compared with 18.1% and 14.1% respectively for Cardinia Shire.
- A higher number of couples without children (27.9%) compared with 24% in Cardinia and a lower number of one parent families (7.7%) compared with 11.8% of Cardinia and a lower number of group households (2.0% compared with 2.2%).
- The most dominant housing size is 2 persons (33.6%) compared with 31% in Cardinia. There are also more single person households and larger households (6+ persons) compared with Cardinia.
- In Garfield, 80.1% of households were purchasing or fully owned their home, 10% were renting privately, and 0.0% were in social housing in 2016. In comparison to Cardinia Shire whereby 70% were purchasing or fully owned their home, 21.8% renting and 1.0% were in social housing.
- In Garfield, 4.2% of the dwellings were medium or high density, compared to 8.3% in Cardinia Shire.

- Between the years of 2011 and 2016, the total number of dwellings in Garfield has increased by 64 (from 631 to 695). Looking back further to 2001, the number of dwellings has increased by 271 (from 424 to 671).
- 78.9% of dwellings have internet connection in Garfield which is lower than Cardinia (82.7%).
- Garfield has a SEIFA ranking of 1,018.9 which places it in the 57th percentile, meaning that approximately 57% of Australian suburbs have a SEIFA index lower than this area (i.e. more disadvantaged), while 43% are higher.

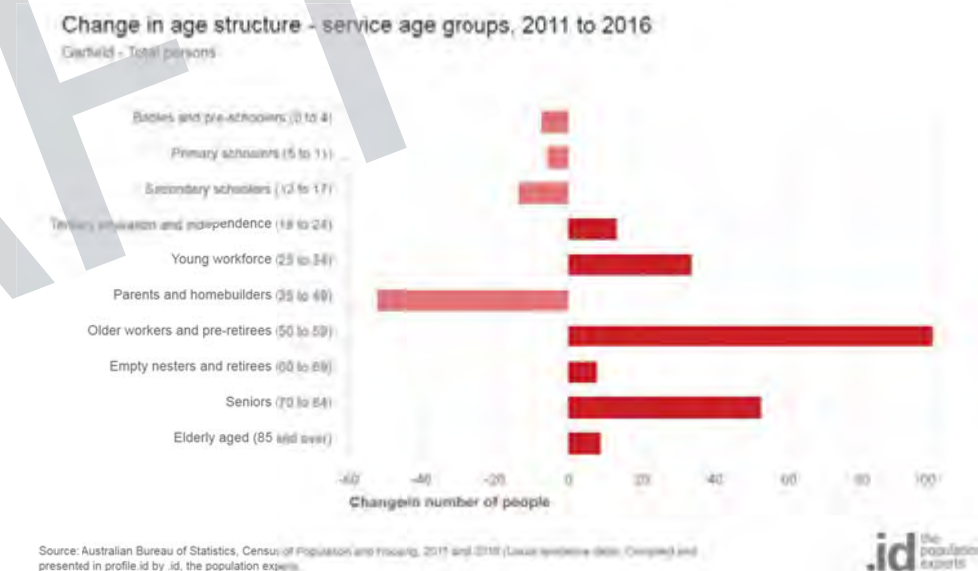


Fig. 32 Change in Age Structure, Garfield (Profile ID)

¹⁷ Demographic data is produced by Profileid.com and is based on 2011 and 2016 census data

Demographic Summary for Garfield

Garfield had a population of 1,431 people in 2016 and most residents were born in Australia and are of Australian, English or Irish ancestry and speak only English. Approximately half of the residents identify as Catholic, Anglican or Presbyterian denomination. A large proportion of residents are employed and approximately 8% of residents work from home. Garfield is predominantly a car-based town with most residents driving a car as their main method of travel. 80% of homes are owned or are been purchased and no social housing is provided in the town. One third of households have only two people and there is also a large proportion of single person households. The number of dwellings increased by 247 between 2001 and 2016.

Similar to Tynong and Nar Nar Goon, Garfield has experienced a substantial increase in older workers and seniors whilst the number of babies and preschoolers and their parents have decreased.

Employment¹⁸

Between the years of 1996 and 2016, Garfield had a compound aggregate growth rate (CAGR) of 2.4% with the employment area concentrated in the town centre. The predominant employment industries for Garfield are construction and education/training which is likely to be related to the significant cluster of equine related businesses (as is the case in Nar Nar Goon). In terms of employment forecasts between 2016 and 2051, the greatest change for Garfield will be in the construction industry where jobs are forecast to increase from 71 to 171.

18 SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

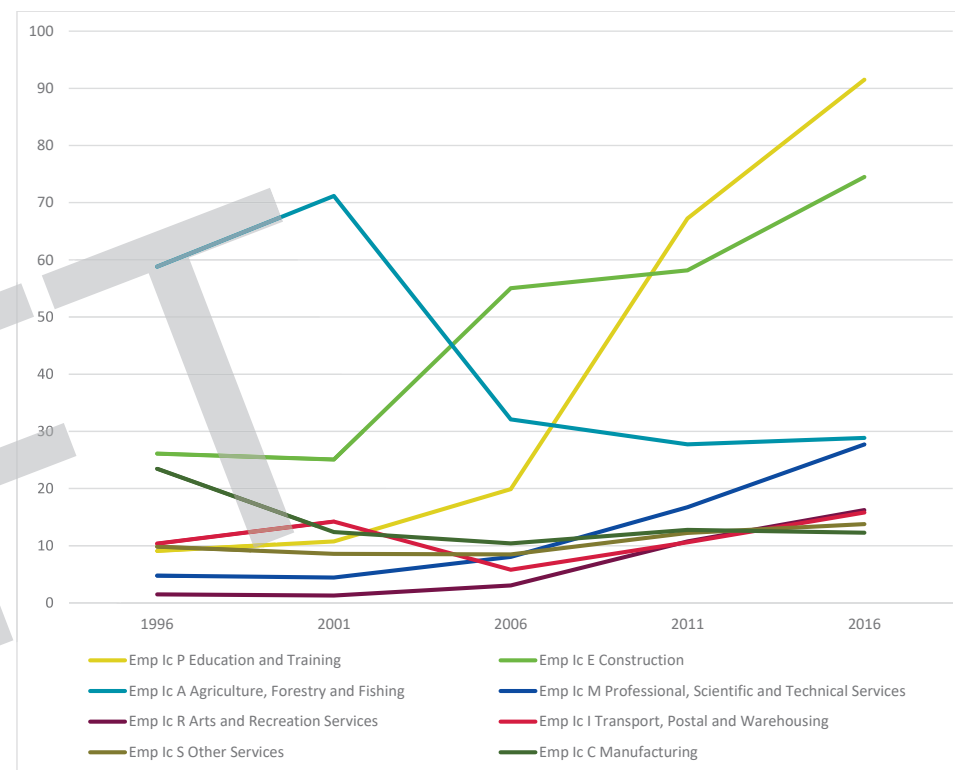


Fig. 33 Employment Profile Garfield (SGS Economics, 2017)

11.2 Current Planning Controls ¹⁹

Garfield has a designated UGB which means that the land situated within this boundary is zoned for urban growth.

As such, a large portion of the land around the edge of the UGB is zoned Low Density Residential (LDRZ2) whereby the minimum subdivision area is 0.4 hectares. A Design and Development Overlay (DDO1) also covers these areas and seeks to ensure an attractive low density environment which has regard to the environmental features and constraints of the land and the existing pattern of subdivision in the area. There are also a number of areas affected by a Development Plan Overlay (DPO6) which relates to the Garfield Township.

The town centre and main street area is situated on the southern side of the railway line and is zoned Commercial 1 Zone with a large pocket of Public Park and Recreation Zone. The commercial strip adjacent the railway line is contained within a heritage precinct (H085) and applies to 33, 37, 41, 51, 55, 57-59, 69, 71, 73-75, 77, 79, 81-83, 87, 89, 95, 97, 101 and 105 Nar Nar Goon-Longwarry Road, Garfield.

The land surrounding the town centre is zoned General Residential Zone (GRZ1) which typically accommodates housing diversity in areas with good access to services and transport. The majority of residential land is located on the northern side of the railway line.

There are two small pockets of Public Use Zone (PUZ6- Local Government) which relate to the school and kindergarten.

There are a series of other heritage overlays across Garfield, including:

- Cotton Palm (H0256);
- Smith Orchard House (H070);
- J. & M.E Lowndes bakery & Residence (H086);
- Garfield Picture Theatre (H087);
- ANZ Bank (H088);
- Teachers Residence and Canary Island Palm (H0186); and
- St Mary's Church of England (H0187).

Land within the UGB to the North West and south is affected by the Vegetation Protection Overlay (Schedule 1) which seeks to protect and conserve existing vegetation.

Land surrounding the town (outside of the UGB) as well as a strip of land along Railway Avenue, to the west, is affected by an Environmental Significance Overlay. The area within the UGB along Railway Avenue (ESO3) relates to 'Other Significant Sites' and identifies a site that is considered to be of botanical and zoological significance as they contain rare, endangered, or uncommon species of plants and animals. The ESO areas outside the UGB relate to the 'Northern Hills' and is an area deemed to have significant landscape and environmental values.

All land on the southern side of the railway line outside of the UGB, as well as lots from No. 1-15 Nar Nar Goon- Longwarry Road and the Garfield Recreation Reserve/Tennis Club and Bowls Club are affected by a Land Subject to Inundation Overlay which is deemed to be affected by 1 in 100 year floods. Similarly, outside of the UGB, all land to the south as well as land east of Garfield Road (to the north) is affected by inundation.

Land on the southern side of the railway line, outside of the UGB is covered by a Restructure Overlay (Schedule 51) which seeks to preserve amenity and reduce environmental impacts of dwellings and other development and identify old/inappropriate subdivisions which are to be restructured.

Land to the north, both within and outside of the UGB, is identified as being of cultural heritage sensitivity.

All land outside of the main township are identified as Bushfire Prone Areas.



¹⁹ All zoning and overlays controls have been sourced from Department of Environment, Land, Water and Planning (DELWP)

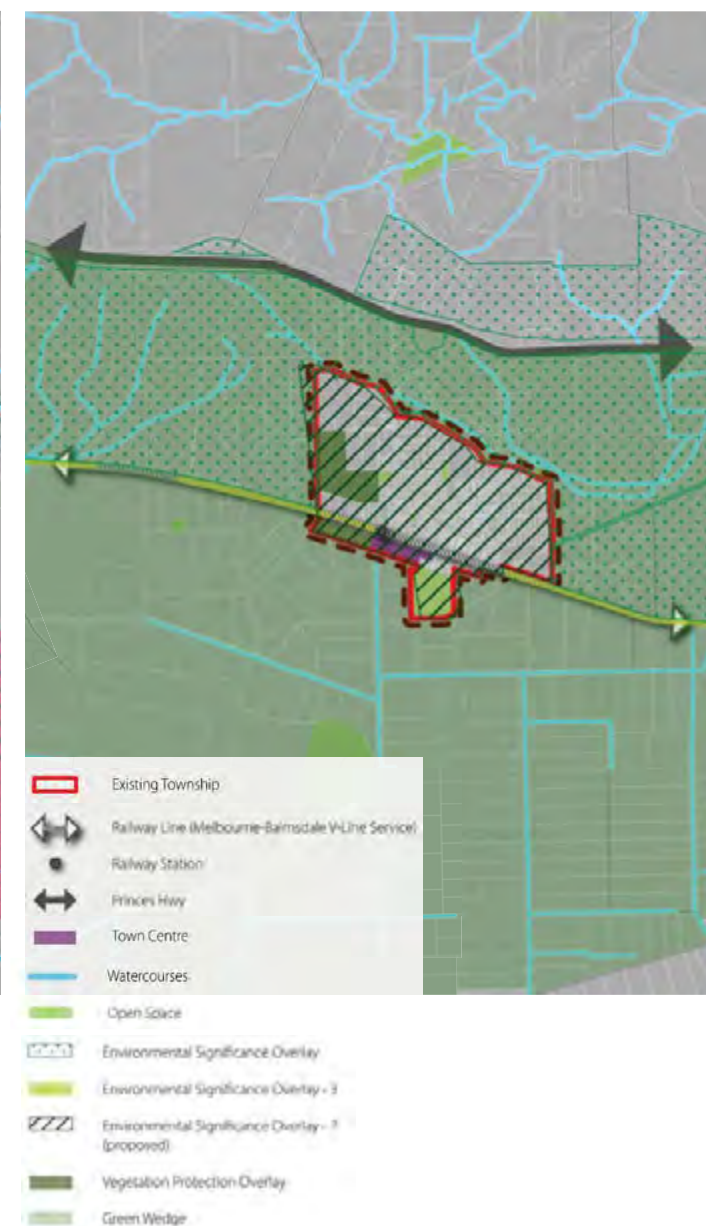
Fig. 34 Zoning Map



Fig. 35 Overlay Map



Fig. 36 Environmental Map



11.3 Accessibility

Garfield is well serviced by transport with the Gippsland railway line (V-Line) crossing through the town east-west and which regularly runs between Melbourne and Bairnsdale. The railway station is also centrally located within the town centre. Buses also operate along Nar Nar Goon-Longwarry Road between Pakenham and Traralgon.

There is currently only one overpass to the railway line, located at the eastern end of the town and a pedestrian underpass located within the town centre. This is a limitation for access to residential land to the north.

The existing township and associated services, community facilities and transport are considered to be within a 10 minute walking distance, with the areas further north within a 10-15 minute cycling distance.

Fig. 37 Accessibility Map



Fig. 38 Services Map

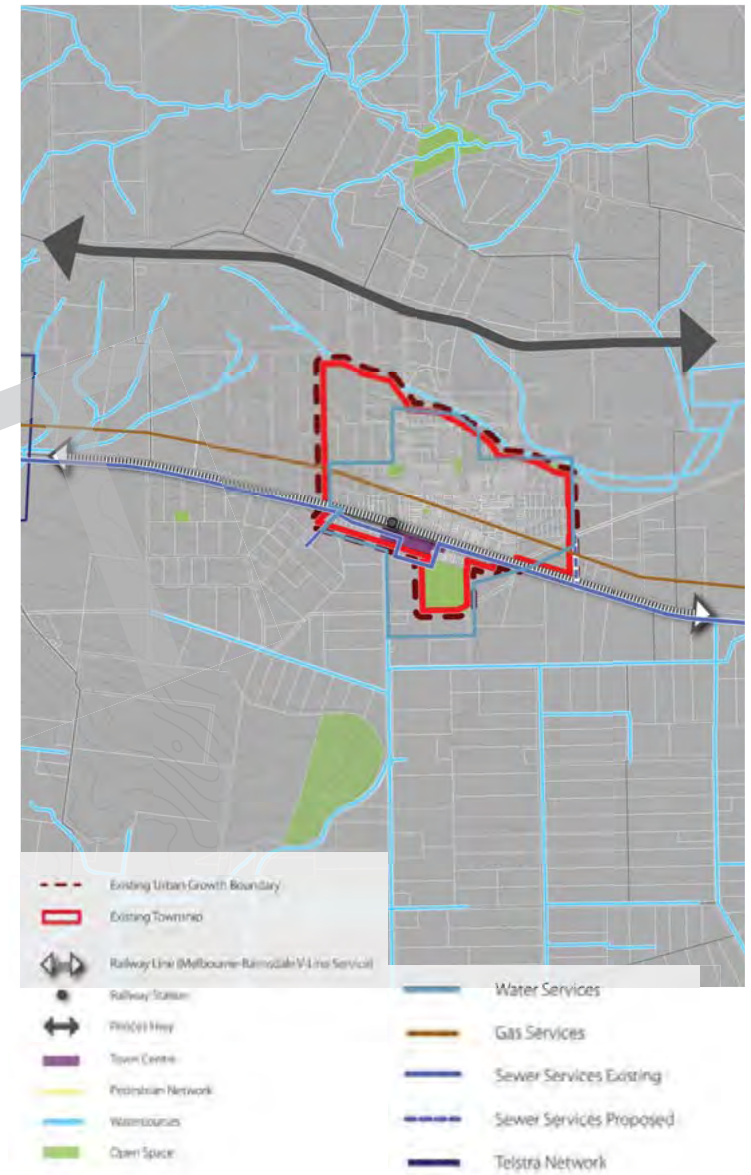


Fig. 39 Community Infrastructure Map

11.4 Community Services and Facilities

Type	Facilities	Address
Education		
Garfield Kindergarten	Kindergarten	29-31 Garfield Rd, Garfield
Garfield Primary School	Primary School	84 Railway Avenue, Garfield
Community Facilities		
Garfield Mobile Library	Mondays: 12:30-3:15pm	Ritchie Street
Garfield Senior Citizens		Beswick St
Garfield Swimming Pool	Open during Summer months	Beswick St
Garfield Community Centre	Hall for hire	Beswick St
Garfield Sporting and Social Club (Bowling Club)		Beswick St
Open Spaces		
Garfield Recreation Reserve	• Playground • Cricket/football ovals • Cricket nets • Tennis court • Netball courts • Pavilions • Shelters • Picnic settings • Seating • BBQ's • Bowling • Skate park • Outdoor exercise station • Off-leash dog park	Beswick Street
Greenland Court Reserve	• Playground • Shelters • Picnic setting • BMX track	Corner of Archer Rd and Greenland Ct
Community Groups		
Garfield Scouts		
Garfield Spectator		

Table. 9 Garfield Community Services and Facilities





Table. 10 Garfield Summary Table

Current	
Population 2016 Census	1431
Annual growth rate	1.3%
Existing infrastructure and services	1 x Garfield Railway Station (V-line) 1 x Kindergarten 1 x Primary School 1 x Mobile Library Service 1 x Community and Senior Citizens Centre 1 x Scout Hall 2 x Recreation Reserve (tennis, cricket, football oval, netball, skate park, playground, BBQ and picnic) 1x Garfield Bowling Club 1 x Outdoor Swimming Pool Restaurants and cafes, pharmacy, small retail shops and Australia Post Telecommunications, electricity and gas services and water and sewerage
Future	
Low Growth Scenario (200-250 hectares)	Vision: Well serviced rural town (community facilities, shops and services) with historic tractions and boutique retail offering. Population: Approximately 2,500 people Residential lots: Approximately 500 to 700 lots Land Zones: No rezoning of green wedge land beyond current UGB. Rezone existing residential land to achieve higher residential density around town centre.
Ultimate Growth Scenario (300-350 hectares)	Vision: Well serviced rural town (community facilities, shops and services) with historical attractions and boutique retail offerings Population: Approximately 5,000 people (or a total of 10,000 people across Garfield and Bunyip) Residential lots: Approximately 750-850 lots Land Zones: Rezone green wedge land south of Garfield Railway Station. No green wedge land rezoned to the east of Garfield. Limited rezoning north and west of Garfield.
Limitations	Maintain green wedge buffer between Tynong, Bunyip and Princes Highway. Bush fire risk Land Subject to Inundation Overlay (flooding) south of Garfield. Further investigation required.
Community and health infrastructure required for Ultimate Growth Scenario Note: Infrastructure shared between Garfield and Bunyip.	Maternal and Child Health Centres Occasional child care and long day care centre Social Housing 1 x New community space for health prevention and promotion programs, including substance abuse support programs and meeting rooms for immunisations Single pedestrian connection over railway line
Key actions for Garfield	Investigate drainage and flooding south of Garfield Single pedestrian connection over railway line Investigate Development Contribution planning mechanism to facilitate future public infrastructure



12 Bunyip

12.1 Summary

Bunyip is the largest of the railway towns and is expected to moderately grow up to the year 2051. Bunyip contains the largest employment hub of the four towns. In part, this is due to the consolidated town centre and attractive main street environment which is built along the north side of the railway line.

The town and its surroundings are heavily vegetated with undulating topography and excellent views to the south. Whilst the town centre is located to the north of the railway, the main public open space and reserves are located to the south of the township.

The town is well-served by community infrastructure, including showgrounds, recreation reserves, a men's shed, RSL, football club social rooms, town hall, scout hall, two primary schools (public and private) and kindergarten. It is the only town of the four to accommodate a small supermarket (IGA).

Future growth in Bunyip is constrained by the urban growth boundary, the majority of which is located to the northern side of the railway line. Growth of the town is also limited by potential bushfire risk areas beyond the main residential and extensive low density residential areas to the north of the railway line.

Population²⁰

Bunyip is the largest of the four towns in term of population with an estimated population of just under 2,500 in 2016 which can be classified as 'small town'. Bunyip is the ninth most populous suburb in Cardinia and has grown at an average annual rate of 1.1% since 1996 when its population was 1,920. Bunyip comprised 4.6% of Cardinia's

population in 1996 however this has fallen to 2.8% in 2016. This is largely due to the significant growth experienced by Cardinia as a whole.

Bunyip is expected to continue as the fastest growing town at an average annual rate of around 1.3% which reflects the continued momentum from its current larger size and higher growth. Population growth is expected to be concentrated in the town centre with average population densities increasing from 5 people per hectare in 2016 to 12 people per hectare in 2051. In comparing this to Pakenham (to the west) which is likely to experience densities of over 50 people per hectare, this is still considered to be a very low population density at 2051.

Between the years of 2011 and 2016, Bunyip has experience significant changes to the population age structure, which can be summarised as follows:

- A decrease in tertiary education and independent age groups (18-24) of -6.1%
- A significant increase in the number of young workforce aged people (25-34) of 38.5%
- An increase in of parents/home-builders of 8.9%; older workers and pre-retirees (50-59) of 22.3%
- An increase in seniors (70-84) of 15%; and
- A significant increase in elderly (85 and over) of 59%.

The above numbers represent the percentage change in age groups between 2011 and 2016 however some groups are very small and any increase represents a larger percentage. As such, please refer to the below bar chart which shows the significant changes in terms of number of people are young workforce (25-34) and older workers and pre-retirees (50-59).

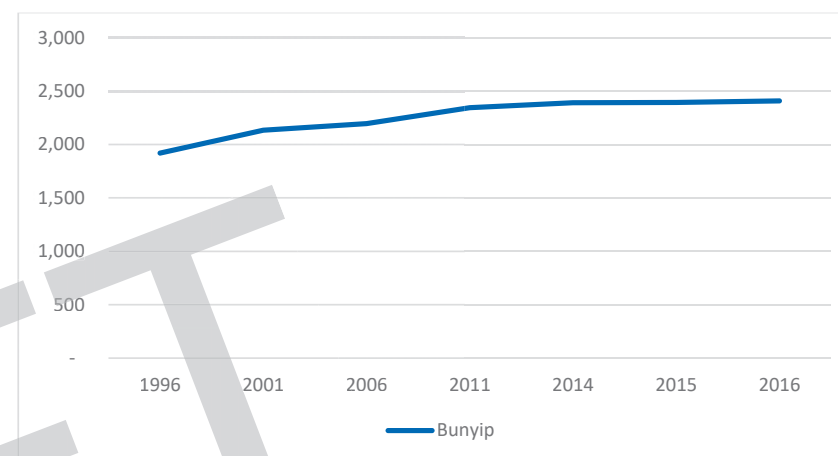
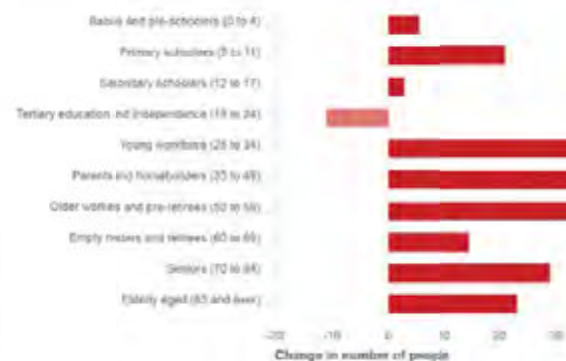


Fig. 40 Population Growth Bunyip

Change in age structure - service age groups, 2011 to 2016

Bunyip - Total persons



Source: Australian Bureau of Statistics - Census of Population and Housing, 2011 and 2016 (quasi-censuses) Copyright and presented in profile at by © the population experts

id
the population experts

Fig. 41 Change in Age Structure Bunyip

20 SGS Economics and Planning, Cardinia Railway Towns
– Economic Profile, September 2017

Demographics²¹

Some other key demographic facts²¹ for Bunyip in 2016 include:

- 92% of the population speak English only, compared with 83% of Cardinia
- 85% of the population were born in Australia, compared with 74% of Cardinia.
- The predominant religions are Catholic (27.5% compared with 21.7% of Cardinia) and Anglican (17% compared with 12% of Cardinia).
- The three largest ancestries in Bunyip were Australian (45% compared with 43.7% in Cardinia), English (39.8% compared with 39.1% in Cardinia) and Irish (12.2% compared with 10.1%).
- 9.7% of Bunyip residents have a bachelor or higher degree education, compared with 13.8% of Cardinia and 28% have a vocational qualification, compared with 25.3% of Cardinia.
- 42.2% of residents have no qualification, compared with 41.5% of Cardinia.
- 4.1% of Bunyip require assistance with core activities due to disability, compare with 4.2% of Cardinia.
- Bunyip has a higher employment rate 96.3% compared with Cardinia (94.5%) as well as lower unemployment rates 3.7% (Bunyip) versus 5.5% (Cardinia).
- Bunyip is predominantly a car-based town with 69% of residents driving a car as their main method of travel, compared with 70.9% of Cardinia. 3.2% are passengers in a car and 1.6% walked only. Similarly, Bunyip has a lower car ownership rate of 1 or 2 cars compared with Cardinia, but a higher rate of 3 or more vehicles (31% compared with 23.7%).

- More residents in Bunyip work from home (6.4%), compared with 4.9% in Cardinia.
- A higher proportion of residents in Bunyip undertake volunteering roles (23.2%) compared with Cardinia (18.2%).
- 17.9% of the households earned a high income and 16.1% were low income households, compared with 18.1% and 14.1% respectively for Cardinia Shire.
- A higher number of couples without children (27.6%) compared with 24% in Cardinia.
- A lower number of one-parent families (9.6%) compared with 22.8% of Cardinia and a lower number of group households (1.8% compared with 2.2%).
- The most dominant housing size is 2 persons (32.7%) compared with 31% in Cardinia. There are also more larger households (5+ persons) compared with Cardinia.
- In Bunyip, 79% of households were purchasing or fully owned their home, 11.5% were renting privately, and 0.5% were in social housing in 2016. In comparison to Cardinia Shire, whereby 70% were purchasing or fully owned their home, 21.8% renting and 1.0% were in social housing.
- In Bunyip, 12.0% of the dwellings were medium or high density, compared to 8% in Cardinia Shire.
- Between the years of 2011 and 2016, the total number of private dwellings in Bunyip has increased by 107 (from 805 to 911). In looking back further to 2001, the total number of dwellings has increased by 184 (from 727 to 911).
- 77.7% of dwellings have internet connection in Bunyip which is lower than Cardinia (82.7%).
- Bunyip has a SEIFA ranking of 1,027.9 which places it in the 61st percentile, meaning that approximately 61% of Australian suburbs have a SEIFA index lower than this area (i.e. more disadvantaged), while 39% are higher.

Demographic Summary for Bunyip

Bunyip has the largest population of the four towns with an estimated population of 2,500 people in 2016. Similar to the other railway towns, Bunyip has experienced an increase in older residents. However Bunyip is the only town to have attracted younger people including parents and home builders aged between 24 to 59.

Most residents were born in Australia and are of Australian, English or Irish ancestry and speak only English. Many residents identify as Catholic, Anglican or Presbyterian denomination. A large proportion of residents are employed and approximately 8% of residents work from home.

Bunyip is predominantly a car-based town with nearly 70% of residents driving a car as their main method of travel. Most homes are owned or are been purchased and no social housing is provided in the town. One third of households have only two people and there is also a large proportion of 5+ person households. The number of dwellings increased by 184 between 2001 and 2016.

Bunyip is expected to continue growing moderately up to the year 2051 due to the existing range of services, community infrastructure, shops and associated employment opportunities.

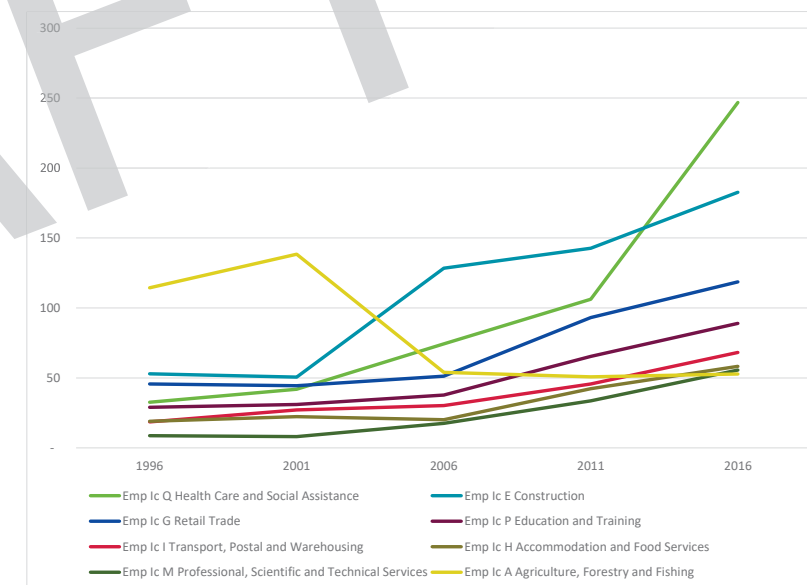


Fig. 42 Employment Profile Bunyip (SGS Economics)

²¹ Demographic data is produced by Profileid.com and is based on 2011 and 2016 census data

Employment²²

Employment across all towns has grown however Bunyip has seen the strongest employment growth with a CAGR over this period of 4.8%.

Employment in Bunyip is expected to more than double from 1,033 jobs in 2016 to just under 2,500 in 2051. The faster growth of employment than population in this instance is likely due to a concentration of population serving industries to serve the subregion, notably a significant increase in the health care and social assistance sector (approximately 750 jobs). This is likely to be related to growth in the aged care sector and the Bunyip medical clinic. Similarly, a number of civil engineering and construction companies are now located in Bunyip which explains the professional services and construction jobs. Accommodation and food services has also grown substantially, tripling in size from 1996 to 2016 which is likely representative of the increase in tourism to the area and the related visitor economies.

Retail trade, construction and education/training will also continue as significant employment industries while agriculture and manufacturing will continue to decline. Overall, the employment density will increase from around 5 jobs per hectare to around 12 in 2051.

²² SGS Economics and Planning, Cardinia Railway Towns – Economic Profile, September 2017

12.2 Current Planning Controls²³

Bunyip has a designated UGB which means that the land situated within this boundary is anticipated for future urban growth.

As such, a large portion of the land around the edge of the UGB is zoned Low Density Residential (LDR22 & LDR23) whereby the minimum subdivision area varies between 0.2 and 0.4 hectares. A Design and Development Overlay also covers these areas and seeks to ensure an attractive low density environment which has regard to the environmental features and constraints of the land and the existing pattern of subdivision in the area. Land at No. 61 and 140 Nash Road, Bunyip is affected by a Development Plan Overlay (DP015) and proposes 27 new low density residential lots ranging in size from 4001- 4261 square metres.

The land surrounding the town centre is zoned General Residential Zone which typically accommodates moderate housing diversity in areas with good access to services and transport.

The town centre and main street area is zoned Commercial 1 Zone with pockets of Public Park and Recreation Zone and Public Use Zones. The Bunyip Commercial and civic precinct is affected by a precinct-based heritage overlay (H046) which affects 14, 18, 19, 20-22, 21A 21 B 21C, 23, 24, 26, 27-28, 29-30, 32-34 Main Street, War Memorial on Main Street median and 2, 7-9, 11, 15, 21 and 23 High Street, Bunyip.

A small pocket of Industrial 1 Zoned land also exists on the southern side of the railway line along Bunyip-Modella Road connecting to three properties over the railway line on the north western corner of Railway Avenue and Hope Street.

²³ All zoning and overlays controls have been sourced from Department of Environment, land, Water and Planning (DELWP)

There are a series of other heritage overlays across Bunyip, including:

- The main drain bridge (H0139);
- Bunyip Fire Station (H099);
- Bunyip State School (H084);
- Railway Sub Station (H0142);
- Murray Road Bridge (H0138);
- Nathans Shop Row (H060);
- Bakehouse (H059);
- Former Flett Bros. Grocers (H059);
- Railway Hotel (H057);
- Bunyip Hall (H056);
- Bunyip General Cemetery (H028);
- Baliantrae (H06);
- St Thomas Church of England (H05);
- Bunyip Residential Precinct- 3,5,7 and 9 George Street (H0150); and
- Houses at No. 4 Hope Street (H0151) and 5-7 Princess Street (H0152).

A large portion of the Low Density Residential Zoned land to the north and north east of the town centre as well as on the southern side of the railway line is also affected by the Vegetation Protection Overlay (VPO1) which seeks to protect and conserve existing vegetation.

Land surrounding the town (outside of the UGB) as well as two other smaller pockets along Nash Road, Hope Street and McNamara Road are affected by an Environmental Significance Overlay which relates to the 'Northern Hills' area deemed to have significant landscape and environmental values.

All land on the southern side of the railway line within the UGB, as well as land fronting Riverside Avenue on the northern side of the railway line, is affected by a Land Subject to Inundation Overlay which is deemed to be affected by 1 in 100 year floods.

In addition to the above, there are three small pockets affected by the Bushfire Management Overlay whereby the bushfire hazard warrants bushfire protection measures be implemented. All land outside of the main township is also identified as Bushfire Prone Areas.

Land on the southern side of the railway line, outside of the UGB is covered by a Restructure Overlay (Schedule 51) which seeks to preserve amenity and reduce environmental impacts of dwellings and other development and identify old/inappropriate subdivisions which are to be restructured.

Land outside of the UGB, alongside the Bunyip River and within the northern hills (amongst other areas) is identified as being of cultural heritage sensitivity.



For discussion purposes

Fig. 43 Zoning Map



Fig. 44 Overlay Map



Fig. 45 Environmental Map

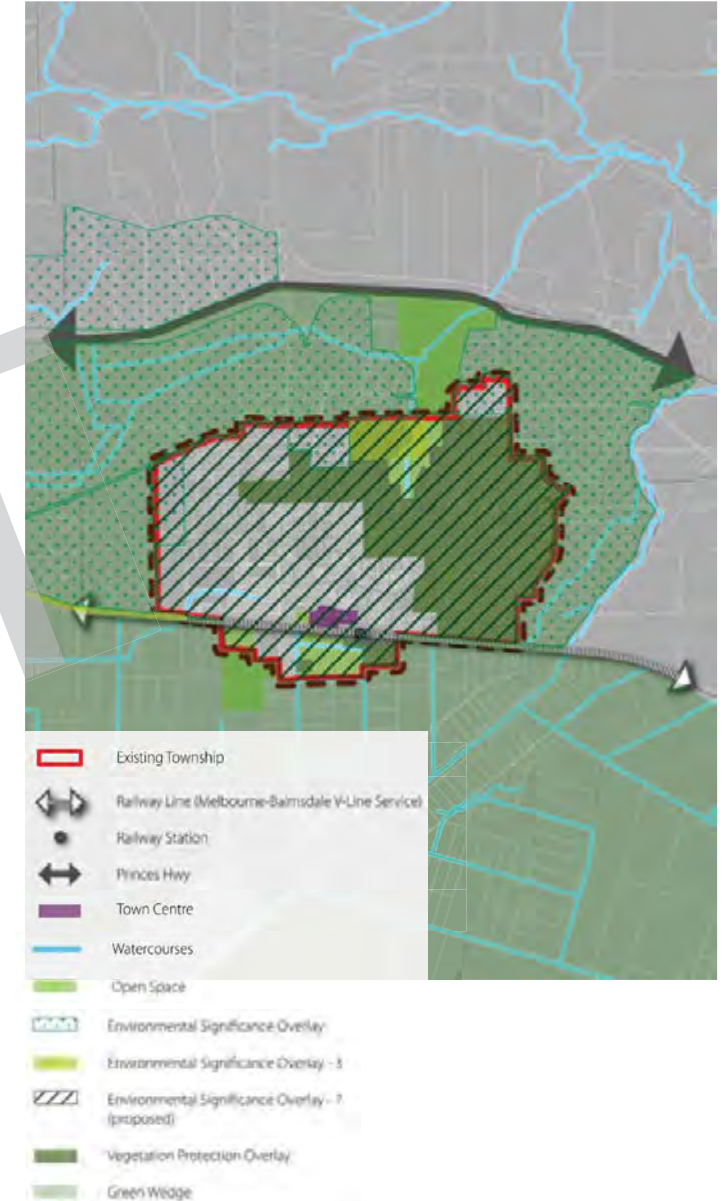


Fig. 46 Accessibility Map

12.3 Accessibility

Bunyip is well serviced by transport with the Melbourne-Bairnsdale railway line crossing through the town east-west and a centrally located train station nestled within the town centre. It is noted that this is currently a single track line. It was announced as part of the 2017/18 Victorian State budget that \$435 million has been committed to the 'Regional Rail Revival – Gippsland Rail Upgrade' over the next four years. Stage 1 of this project includes track duplication between Bunyip and Longwarry as well as an additional platform at Bunyip station. The upgrades seek to increase frequency, reliability, punctuality and safety for the area.

There are currently two overpasses to the railway line on either end of the town centre, at the eastern end this connects off Riverside Avenue and at the western end from Bunyip-Modella Road. This provides good connection between the north and south sides of the railway line.

The existing township and associated services, community facilities and transport are considered to be within a 10 minute walking distance, with the areas further (predominantly LDR2) north within a 10 minute cycling distance.

12.4 Community Services and Facilities

Bunyip has good access to community facilities, by way of education, open space reserves, and community services and organisations. Of all four towns, Bunyip is considered to have the most services for residents.

It is noted however that many students at secondary school level are required to commute to surrounding towns.



Fig. 47 Services Map



Table. 11 Bunyip Community Facilities

Type	Facilities	Address	Reserves
Education			
Kindergarten	Kinder & Maternal Child Health	29 Princess St, Bunyip	Bunyip Showgrounds and Recreation Reserve • Playground • Cricket/football ovals • Tennis courts • Netball courts • Pavilions • Shelters • Picnic shelters • Soccer ground
Primary School (state school)	Primary School	Nar Nar Goon-Longwarry Rd, Bunyip	
Catholic Primary School (private)	Private primary school	28 Hope St, Bunyip	
Community Facilities			
Bunyip Mobile Library	Mondays- 10:45-12:15pm Saturdays 9:30-1:45pm	Bunyip School and Main Street	
Bunyip RSL		9 George Street, Bunyip	Bunyip- Pound Road Reserve • Pavilions • Equestrian area
Bunyip auditorium committee of management	Caters for local education presentation and award ceremonies, local events and entertainment, community group meetings and the sport and recreation needs of the local community. The facility has been designed to include a meeting room, portable stage, basketball court, change room facilities, kiosk and spectator seating for up to 1200 persons. Currently hired out to schools, sporting clubs, basketball clubs etc.	Longwarry-Nar Nar Goon Rd	Koolangarra Park • Playground • Shelters • Picnic settings • Seating • BBQ's • BMX track
Community Groups			
Bunyip CFA Fire Brigade			Hillview Bunyip Men's Shed
Bunyip football club social rooms			Rotary Club Bunyip-Garfield
Bunyip Hall			Bunyip History Committee
Bunyip masonic lodge			Bunyip Landcare Group
Bunyip Primary School Hall			Friends of Bunyip State Park
Bunyip Scout Hall			Bunyip and District Community Newsletter
			Bunyip Community Singers

Fig. 48 Community Infrastructure Map



Table. 12 Bunyip Summary Table

Current	
Population 2016 Census	2500
Annual growth rate	1.1%
Existing infrastructure and services	1 x Bunyip Railway Station (V-line) 1 x Kindergarten 2 x Primary Schools (Bunyip Primary School and Catholic Primary School) 1 x Police Station 1 x Mobile Library Service 1 x CFA Fire Brigade 1 x RSL and Bunyip Scout Hall 1 x Bunyip Auditorium (basketball courts, meeting rooms, portable stage, change rooms) 1 x Football club social rooms 1 x Masonic Lodge 3 x Recreational reserves (Showgrounds and Recreation Reserve (playground, tennis, cricket, football, netball, soccer, picnic), Pound Road Pavilion and equestrian area and Koolangarra Park (playground, picnic, BBQ, BMX track) 1 x Aged Care Residence (Hillview) Various shops and services (Several restaurants, takeaway shops and cafes, pharmacy, automotive repairs, small retail shops, veterinary clinic, IGA supermarket, Commonwealth Bank Branch and Australia Post) Telecommunications, electricity and gas services and water and sewerage
Future	
Low Growth Scenario (450-550 hectares)	Vision: Well serviced rural town (community facilities, shops and services) with historical attractions and boutique retail offerings Population: Maximum of 3,000 people Residential lots: Approximately 500 to 700 lots Land Zones: No rezoning of green wedge land beyond current UGB. Rezone existing residential land to achieve high residential density in town centre.
Ultimate Growth Scenario (600-650 hectares)	Vision: Well serviced rural town with a range of employment opportunities, particularly in health care and tourism Population: Maximum of 5,000 people (or a total of 10,000 people across Garfield and Bunyip) Residential lots: Approximately 1500 to 1600 lots Land Zones: Rezone existing residential land to achieve higher residential density in town centre. Rezone green wedge land north-west, west and south-east of Bunyip. No rezoning of green wedge land north of existing UGB.
Limitations	Green Wedge Zone and Vegetation Protection Overlay. Steep topography surrounding town centre Land subject to Inundation Overlay (flooding risk) to the south Bushfire risk
Community and health infrastructure required for Ultimate Growth Scenario. Note: Infrastructure shared between Garfield and Bunyip.	Secondary School Occasional child care and long day care centre Maternal and Child Health Centres Social Housing Community space for health prevention and promotion programs, including substance abuse support programs and illness prevention programs and meeting rooms for immunisations.
Key actions for Bunyip	Industrial Land Review for Bunyip to determine feasibility of existing industrial land Investigate drainage and flooding area south of Bunyip Investigate Development Contribution planning mechanism to facilitate future public infrastructure

13 Summary

The two smaller western towns of Nar Nar Goon and Tynong both lack strength in basic support services of retail and social/community services. Additional growth in these towns would assist the community to be somewhat better served locally. Otherwise they will under utilise the key assets of having the township station. The two larger townships provide a reasonable level of services, retail and employment which underpins a strong township character and quality.

In the short term, strategic planning needs to acknowledge the opportunity to strengthen the ability for each of the towns to achieve a sustainable base population to ensure adequate services and facilities exist to avoid the need to travel great distances for basic services and needs.

Towns and neighbourhoods are planned around their community infrastructure as the community uses these nodes in their everyday lives to shop, learn, play and socialise. These places can help define the community's character and also reflect the area's history and heritage and the services available also contribute to the community's health and well-being¹.

The basis of this analysis was to identify the role and function of the towns and to provide recommendations to guide the future development of the towns. This analysis has found that treating the towns as two sets as opposed to individual towns will assist in the long-term sustainability of the towns as they will be better served from a community and health infrastructure perspective.

There are some potential servicing constraints to future development of the land however this has been analysed in a coordinated fashion across all four towns. Further investigation is required to determine the extent of development that can occur particularly in Tynong, Garfield and Bunyip to the south which is considered to be partly subject to inundation. Additional community and health infrastructure is required in some areas more than others. Due to the recent increase of households with young children in Bunyip, as well as the town's distance from the existing secondary college in Tynong, it would be logical to consider the inclusion of a secondary school in Bunyip.

It is important to recognise the role of each town and their capacity to accommodate additional population and services. The smaller townships of Nar Nar Goon and Tynong are not expected to achieve the population and scale of services and infrastructure seen in more established areas, such as Pakenham. Similarly, Bunyip and Garfield are expected to continue servicing the town and nearby surrounds with most basic services, employment opportunities and leisure activities - as they currently do. The preparation of township strategies for Nar Nar Goon and Tynong and applying the UGB will assist in underpinning the role and capacity of each town and ensure each town complements one another.

Whilst the population in these towns is forecast to grow, this growth is considered quite low in comparison to the rest of Cardinia. Nonetheless, the growth in the context of the towns (particularly for Garfield and Bunyip) is a sign of demand for regional and peri-urban living within Cardinia Shire.

¹ Australian Social and Recreation Research Pty Ltd, 2008, Planning for Community Infrastructure in Growth Areas

14 Implementation Strategy

This implementation strategy delivers a series of important 'Next Steps' (or list of works) which have come about from this assessment. The adjacent table includes details on the next steps, who the responsible for actioning and completing the works, and whether it is of low, medium or high priority.

Ideally, all of the next steps would be acted upon in the immediate or short term timeframe. However, due to limitations around staffing and funding, it is unlikely that all the works will be completed in such a short time period and therefore the actions are prioritised to meet current population needs. This implementation strategy should be seen as dynamic, where new strategies and priorities will be fed into the table and subsequently update Council's set of priorities

High

High 'next steps' should be completed within the next 3 years. These actions assess or seek to meet the demand of the existing population. Actions include investigation of the existing drainage and flooding issues and feasibility of industrial land.

Medium

Medium 'next steps' should be completed within 5 years. These works help to forecast the demand of the existing and future population for the next 20 years. Township strategies and investigating tourism opportunities are considered to be medium term activities.

Low

Low 'next steps' should be completed within 10 years. It is anticipated that a range of other issues will arise for the townships and nearby surrounds. The information retrieved through the high and medium list of works will also inform the works that need to be undertaken within the next 10 years. At present, works that are considered to be of low priority include the railway towns cycling trail between Pakenham and Bunyip and creation of a public realm palette specifically for the railway towns.

Table. 13 Next Steps Table

Next Steps	Who	Priority
Prepare a detailed residential zone review for all four towns to determine opportunities for rezoning.	Council	High
Industrial Land Review for Bunyip to determine feasibility of existing industrial land	Council	High
Drainage investigation study – flooding area south of Bunyip, Garfield and Tynong	Council	Very High
Investigate level crossing removal and relocation of train station for Tynong closer to the corner of Tynong Road to allow for greater connectivity with the Racecourse precinct.	Council/State Government	Medium
Prepare a township strategy for Nar Nar Goon and apply UGB	Council	High
Prepare a township strategy for Tynong and apply UGB	Council	High
Investigate the use of DCP's for any future rezoning to capture value uplift and ensure that essential services are delivered	Council	Medium
Investigate additional tourism opportunities for each town to draw greater economies to the towns	Council	Medium
Build upon tourism around the murals and art evident in the towns	Council/Tourism Victoria	Low
Investigate the feasibility of a railway towns cycling trail (between Pakenham and Bunyip) as recommended in the Cardinia Shire Council Pedestrian and Bicycle Strategy.	Council	Medium
Prepare public realm palette for parks, streets and street furniture.	Council	Low
Following preparation of the Nar Nar Goon and Tynong Township Strategies and and consider funding models to upgrade water and sewerage infrastructure to Nar Nar Goon and Tynong.	Council	Medium

This page is intentionally blank

DRAFT

