traralgon background report

traralgon growth areas review

august 2013

LatrobeCity
a new energy

The Traralgon Growth Area Review: Background Report was undertaken by **hansen partnership** and **Parsons Brinkerhoff**.

The Traralgon Growth Areas Review is a shared initiative of the Victorian State Government and Latrobe City Council.

August 2013

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1 introduction

Traralgon is the largest urban area in the Gippsland region. In terms of population, residential development and commercial and industrial investment it is the fastest growing centre in the region. It had a population at the 2011 census of 26,038 (or 26,000 for the purposes of this study). The city forms part of a network of cities in the Latrobe Valley (Traralgon, Morwell, Moe and Churchill) with a total population of 54,699 which represent one of Victoria's major regional centres and is identified as such within the State Planning Policy Framework. The wider municipality of Latrobe City was home to 73,594 people at the time of the 2011 census. Traralgon is the major administrative and retail / commercial centre for the Gippsland region and contributes significantly to the strength of the regional economy. In addition to its regional level role, Traralgon is also the centre of a productive rural area with a local network of small towns and rural areas that depend on the services the city provides.

Current and projected population and residential development growth rates for Traralgon would require a substantial expansion in the existing urban area if past and current urban development and density practices were maintained. Combined with the fact that Traralgon's long term future urban expansion is constrained in a number of directions by areas subject to flooding, land set aside for future brown coal extraction, industrial land uses and the route of the future highway bypass, Council has identified that a long term plan is needed to ensure that future urban development can be accommodated.

The Traralgon Growth Areas Review (TGAR) informs this long term planning by providing the following final outputs:

- This Background Report which reviews the existing conditions which may influence future growth;
- A Traralgon Growth Area Framework; and
- A new Traralgon-Morwell Corridor Structure Plan (the Traralgon West Structure Plan).

1.1 why undertake the traralgon growth areas review?

Latrobe City Council is responsible for identifying, planning and setting aside land to accommodate long term residential, retail, industrial and employment requirements to meet anticipated demand for the development of Traralgon.

Council has decided to undertake this review due to a number of critical factors that have or will put pressure on the ability of Traralgon and surrounds to accommodate likely future development. Chief among these factors is the recent State government decision to nominate the northernmost alignment for the future Traralgon Bypass. This decision had a direct impact on the adopted *Traralgon-Morwell Corridor Concept Plan* 2007 which earmarked a large area of land (approximately 500 ha) for future urban growth south of the (now agreed) bypass alignment.

Latrobe City must therefore revise its current strategies to accommodate future urban growth as developing land south of the bypass area is no longer feasible nor is it a desirable settlement outcome. Strategic assessments (undertaken in 2009) of current land supply estimates in Traralgon and surrounds indicated that there was a substantial shortage of residential land earmarked for future urban needs. To avoid unnecessary constraints on the residential market within Traralgon, and in recognition that a number of possible areas have significant constraints that limit where urban growth can be located, it is important to ensure a long term plan is prepared.

Developing urban growth options for Traralgon and surrounds must also consider the supply of land for commercial and industrial activity. The current land use composition, particularly within the central area of urban Traralgon, needs to be reviewed in relation to the anticipated residential, commercial and industrial land use demands over the next 40 years up to the year 2051.

The purpose of the Traralgon Growth Areas Review (TGAR) is to:

- Identify all future urban development growth options in and around Traralgon and the surrounding area including Glengarry and Tyers to ensure that there is sufficient land set aside to accommodate long term residential, commercial, and industrial requirements as a result of future population, housing, retail and employment demands.
- Prepare a new structure plan for the Traralgon-Morwell Corridor (Traralgon West). The Corridor plan is only intended to be developed for the area north of the existing Princes Freeway.
- To identify future requirements for community infrastructure to support population growth.

1.2 how the tgar was undertaken

The initial stages of the Traralgon Growth Areas Review were undertaken by Parsons Brinkerhoff. The methodology used to produce part of the content of this Background Report was based on three key elements:

- Desktop research (including a literature review of relevant Council strategies and best practice in urban planning, urban design and sustainability);
- Site investigations throughout the study area; and
- Qualitative consultation activities.

Following this work, hansen partnership were engaged to undertake the *Traralgon Growth Areas Framework* and additional inputs were generated which have formed part of this Background Report, which is a Latrobe City document.

This background document provides both an overview of the existing conditions for the broad study area, but also identifies the opportunities and constraints which affect both the study area as a whole, and sets outlines some concepts which are associated with sustainable settlements and growth patterns.

The outputs associated with this project will be as follows:

- This *Traralgon Growth Areas Review Background Report* which provides context for the project;
- The *Traralgon Growth Areas Framework* which assesses in more detail the demand and land requirements for land uses and establishes a framework for long-term growth for Traralgon and its surrounds; and
- The *Traralgon West Structure Plan* which provides additional detail and directions regarding the future land use and planning of the important Traralgon-Morwell Corridor.

1.3 study area

The study area for the Traralgon Growth Areas Review comprises approximately 16,900 hectares (or 169 square kilometres) of land that includes the regional centre of Traralgon and its surrounds, primarily to the north. This study area also encompasses the Tyers and Glengarry townships, the corridor between Traralgon – Morwell as well as the proposed Traralgon bypass (which forms the southern boundary of the study area). The extent of the study area is illustrated in Figure 1.

Figure 1 also identifies the outlines of the area covered by the following structure plans, for ease of reference:

- *Traralgon Structure Plan (2007)*
- *Morwell Structure Plan (2007)*
- *Small Town Structure Plans: Boolarra, Tyers and Glengarry (2009)* (note: Boolarra is not affected by this project)

hansen

traralgon growth area framework

study area

legend

- study area
- precinct boundaries
- extent of existing structure plans

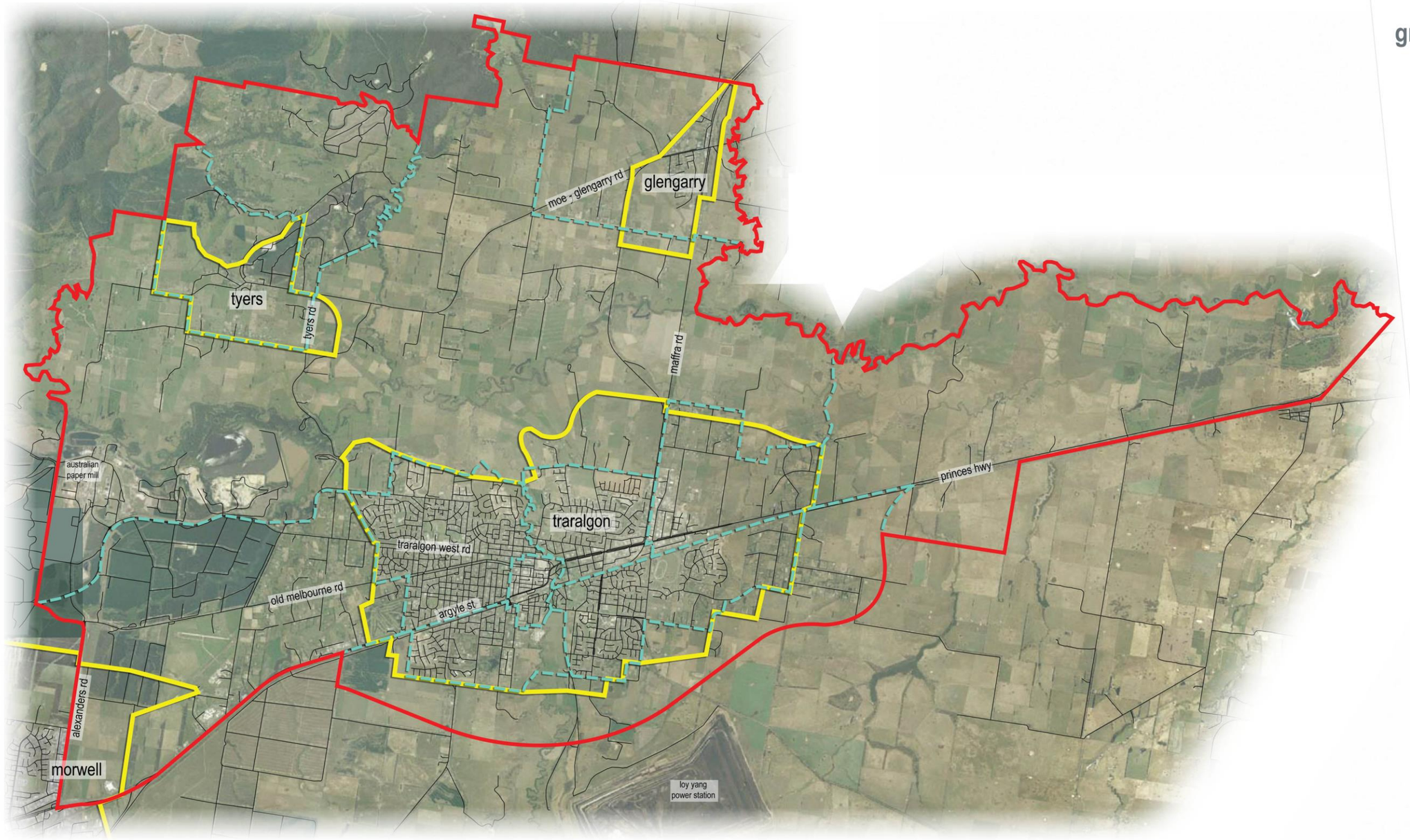

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Figure 1: study area

2 existing conditions

This chapter documents the relevant existing conditions in relation to a variety of matters which need to be considered in the formulation of the review of growth areas for Traralgon. These include:

- Regional and municipal context;
- Transport;
- Infrastructure; and
- Land use and urban form.

2.1 regional and municipal context

Traralgon is one of the key regional centres in Victoria. It is located 164km to the east of Melbourne along the Princes Highway. It is the largest of a string of towns which stretch out towards Lakes Entrance on the coast which include Drouin, Warragul, Moe, Morwell, Traralgon, Sale and Bairnsdale.

The municipality of Latrobe City has previously adopted a model of development that establishes a hierarchy of townships comprising four main towns: Moe (9,448 persons), Morwell (14,205), Traralgon (26,038), and Churchill (5,008) which form what is known as a ‘networked city’.

The population of Latrobe is also distributed across seven smaller settlements and a rural hinterland. The Municipal Strategic Statement recognises that while each town provides many of the services and facilities required by its residents, they are not separate, self contained entities which operate in isolation from each other. The towns and settlements interact, to varying degrees, to create what is, effectively, a ‘networked city’, highlighting the need for good inter-town connections.

Most of Victoria's electricity generation facilities are located in the Latrobe Valley and the region has Australia’s largest reserves of brown coal. Power generation resources and facilities dominate the landscape of large areas of the valley. To the immediate southwest of Traralgon is the Loy Yang Power Complex and open-cut coal mine. In addition, large areas of rural land to the south of Traralgon have been set aside as long term future coal reserves. As such, the land around Traralgon plays a role in the functioning of the whole state of Victoria, well beyond that which would otherwise be played by a regional area.

Traralgon's large commercial centre includes the Traralgon Shopping Centre, South Side Central, which incorporates the major regional railway station, and shops which line the attractive streets of Franklin Street, Seymour Street and Hotham Street. The landmark building in the town centre is the post office building built in 1887. Regional facilities include the Latrobe Regional Hospital, a purpose built 257-bed, fully integrated health service located at Traralgon West and a campus of the University of Ballarat at Churchill, 20 kilometres to the southwest of Traralgon. These services, facilities and retail offer serve a very large catchment. Anecdotal evidence suggests the retail opportunities of the town, as well as larger scale infrastructure such as the Latrobe Regional Hospital attracts people from the full extent of Gippsland. As such, Traralgon serves somewhat as the de facto ‘capital’ of Gippsland.

Figure 2: regional context

2.2 transport

This chapter seeks to establish both the existing policy context in which decisions on transport related matters are made, and to broadly define the existing conditions 'on the ground' in the study area.

2.2.1 policy and planning

integrated transport act (2010)

The Transport Integration Act was introduced in 2010 as Victoria's principal transport Act, bringing together all matters relevant to transport and linking them clearly to land use planning outcomes. The Act requires that all decisions affecting the transport system be made within the same integrated decision-making framework and support the same objectives (under a triple bottom line). Any rezoning of land, for example, now needs to demonstrate how it is consistent with the objectives of the Act, which are:

- Social and economic inclusion
- Economic prosperity
- Environmental sustainability
- Integration of transport and land use
- Efficiency, coordination and reliability
- Safety and health and wellbeing

victorian transport plan

The Victorian Transport Plan (2008) identifies the following priorities for improvements, which have relevance for the study area:

- New industries using brown coal from Gippsland are likely to come on stream from about 2015. This project provides for scoping, options analysis and pre-feasibility studies on transport infrastructure requirements to support development of these new industries and get value-added coal products to world markets.
- Better regional roads, including commencing the Princes Highway duplication between Traralgon and Sale to improve Gippsland's connection to Melbourne.
- Improved bus services – to better link regional communities. Bus services in the Latrobe Valley have been targeted as a priority.
- New train carriages and upgrades to regional train stations with better bus and taxi access and car parks (although no specific details were included regarding the Latrobe Valley).
- Regional airport upgrades (although no specific mention was made of Latrobe Regional Airport).
- Transport connections – funding to help local communities take local action, to better link their communities (although no specific details were included regarding the Latrobe Valley).

draft regional growth plan

The recently released draft *Gippsland Regional Growth Plan* also identifies some relevant existing key transport initiatives, as follows:

- Expanding road space such as the duplication of the Princes Highway between Traralgon and Sale, and a potential Princes Highway Traralgon bypass (land has been reserved in the Latrobe Planning Scheme through a public acquisition overlay)
- Improving and modifying the network of public transport services to better meet market needs
- Improving and modifying the network of cycling and walking tracks and trails
- Maximising use of existing infrastructure such as higher productivity freight vehicles on designated routes, encouraging road freight to operate in non-peak periods and timetabling enhancements on the rail network
- The proposed East West Link to improve access to the Port of Melbourne and Melbourne Airport, and support access for a growing population in Gippsland and Melbourne's south-east growth corridor
- Enhancing rail capacity via passing loops in conjunction with the Dandenong Rail Capacity Program and providing additional train paths to retain direct linkages to Melbourne's CBD through the Melbourne Metro project
- Developing the Port of Hastings and the Port of Melbourne to increase capacity to handle containerised and bulk trades
- Work to identify opportunities for rail and road reserves, including to and from the Port of Hastings and other intra and interstate freight and logistics precincts, in support of future industrial and natural resource based export opportunities.

Within the plan Morwell is identified as a key freight and logistics hub, meaning there are opportunities, particularly to the west of Traralgon to build on anticipated efficiencies in freight movement into the future.

transit cities

Transit Cities is a major Victorian Government program that focuses on creating opportunities for people to live and work in the same area. Transit City projects will fund mixed-use, higher-density development based around the key centres of Moe, Morwell, Traralgon and Warragul, which forms the Latrobe Warragul Transit City identified in Figure 2. As part of this initiative, the *Latrobe Transit Centred precincts - Traralgon Town Summary* (2006) was prepared. This document identifies that the aims of 'Transit Cities' are to:

- Create safe, vibrant and accessible communities that are centred on public transport.
- Link people to services, to opportunities and to each other by putting a seamless transport network at their doorstep.
- Encourage higher-density, mixed-use development (which) will cater for and stimulate urban growth.
- Maximise the Victorian Government's investment in Regional Fast Rail Links.
- Protect the local character from uncoordinated urban growth by concentrating development around railway stations.

Based on Transit City objectives, the *Latrobe Transit Centred Precincts - Traralgon Town Summary* (2006) provided an initial Masterplan for the key public realm improvements and development opportunities identified in the precinct. It is notable that this Transit City document addressed much of the city centre of Traralgon, rather than the immediate surrounds of the station.

An additional, more detailed masterplan was recently adopted by Council for the Traralgon Station Precinct which addresses the area immediately surrounding the station. This document outlined the opportunity for the inclusion of additional medium or higher density development to be provided to the south of the railway line. The Traralgon Inner South Masterplan also aims to increase the residential population close to this key transport infrastructure.

latrobe planning scheme

Council objectives identified in the Latrobe Planning scheme, relating to transport and land use integration, include:

- General support for walking, cycling and public transport alternatives
- Encouragement of well-designed, infill residential development, services and facilities throughout the existing urban area and especially in locations with good public transport accessibility
- Encouragement of walkable neighbourhood centres and increased densities around Transit City areas
- To increase and maximise public transport opportunities between towns and within corridors to support the networked city
- To encourage a reduction in pollution from transport sources
- Strategic provision for road and rail freight

other adopted council transport strategies

The *Traralgon West Traffic Study Issues and Options Report* was undertaken in July 2002 by Arup. The Study concluded that an east-west link providing a new high level crossing of Traralgon Creek is unlikely to ever to be justified based on economic grounds and traffic volumes. Even constructing a low level structure across the creek would still incur considerable cost and provide little benefit due to the likely low cross-town demand around the CBD. Arup suggested that a link between Breed Street and Cross's Road could be aligned to allow for the potential for a future road to cross the creek. Since the completion of the study, the development of the Sherwood Park Estate has progressed relatively quickly and provision has been made in the Outline Development Plan for the development of the balance of the land between Sherwood Park and Traralgon Creek for a possible future crossing of Traralgon Creek.

Council confirmed in 2005 that they would not, at that time, construct an east-west link across Traralgon Creek, and that traffic management improvements continue to be implemented as appropriate measures are identified and funded. They also determined that Council would undertake appropriate planning for the east-west link across the northern boundary of the urban area of the township of Traralgon. Given the intervening time since that Arup assessment the need may be greater than identified in that report.

The *Latrobe Structure Plans – Traralgon* (2007) identified the following transport issues:

- Indirect public transport routes, particularly for growth areas
- A need for better design of new subdivisions for public transport
- A need for early provision of bus services to growth areas
- Limited east-west connections to the north and the south of the Traralgon city centre
- In order to service the new growth along the fringe areas Traralgon will also require significant extension of its pedestrian and cycling networks.

The *Latrobe Structure Plans – Traralgon* (2007) identified the following transport objectives:

- Establish walkable neighbourhood centres in growth areas.
- Improve transport routes and ease of movement within existing and new areas, including:
    - Better bus coverage of industrial areas;
    - Early introduction of direct bus services for growth areas; and
    - Interconnect and expand on the existing network of bike routes.
- Improve visibility and accessibility of Traralgon train station, supporting pedestrian, bus and cycle access and facilities.
- Provide additional east-west route for all modes of transport and reduce the need for residents to cross the city centre to access community facilities, specifically travel between the northeast and northwest, and between the southeast and southwest.

In the *Small Town Structure Plans, Background Report* – April 2009 the following transport issues and opportunities were identified, with regard to Tyers and Glengarry:

- New development proposals should consider and appropriately address impacts of additional traffic volumes on existing roads.
- Improve existing walking tracks.
- All new development proposals should provide appropriate pedestrian access and connections throughout the development as well as providing links with existing connections and the town centre;
- Improve bike and path trails and improve access throughout the township.
- Improve public transport.
- Management of safe vehicle access points on local roads.

Figure 3: existing traralgon-morwell corridor concept plan (2007)

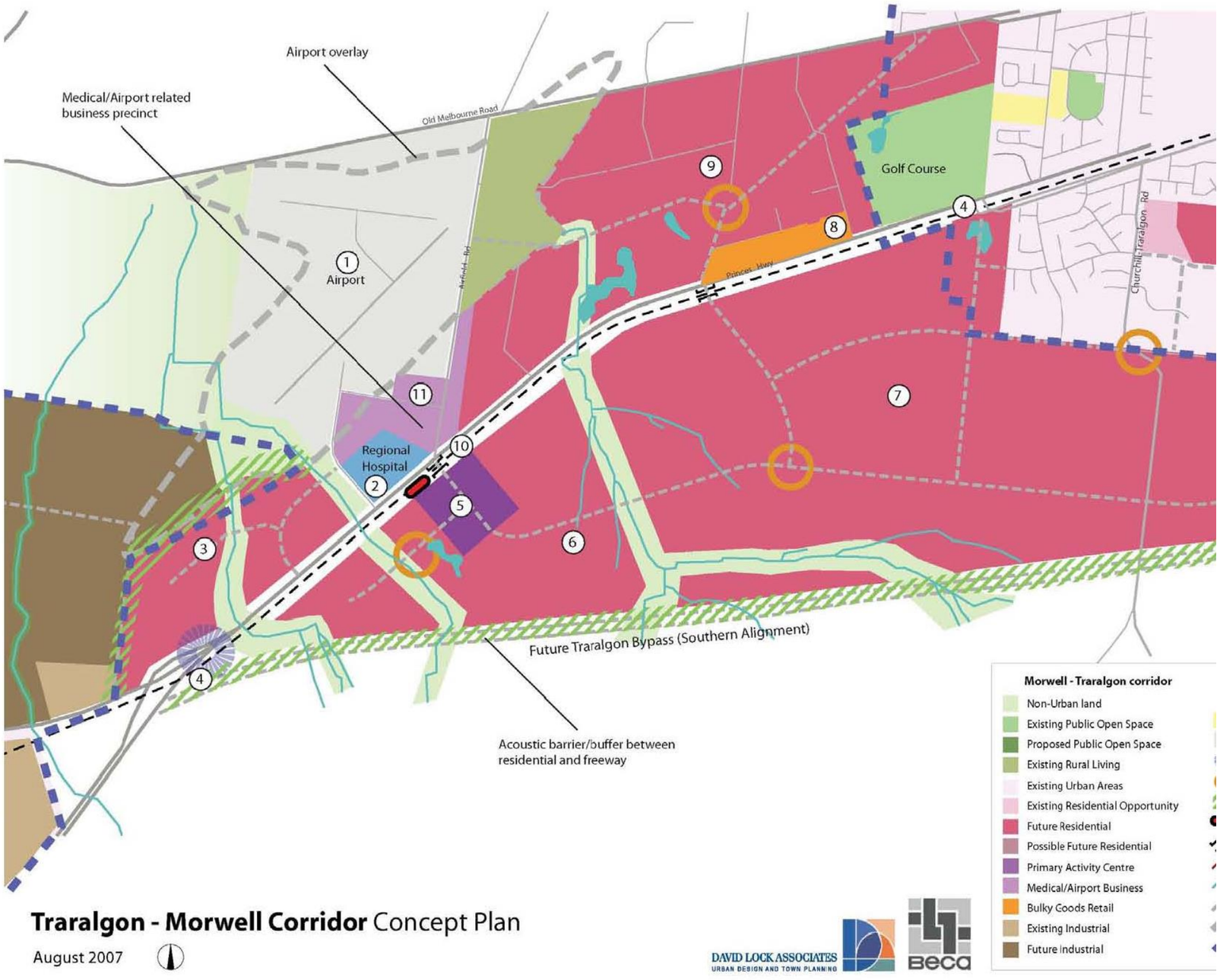
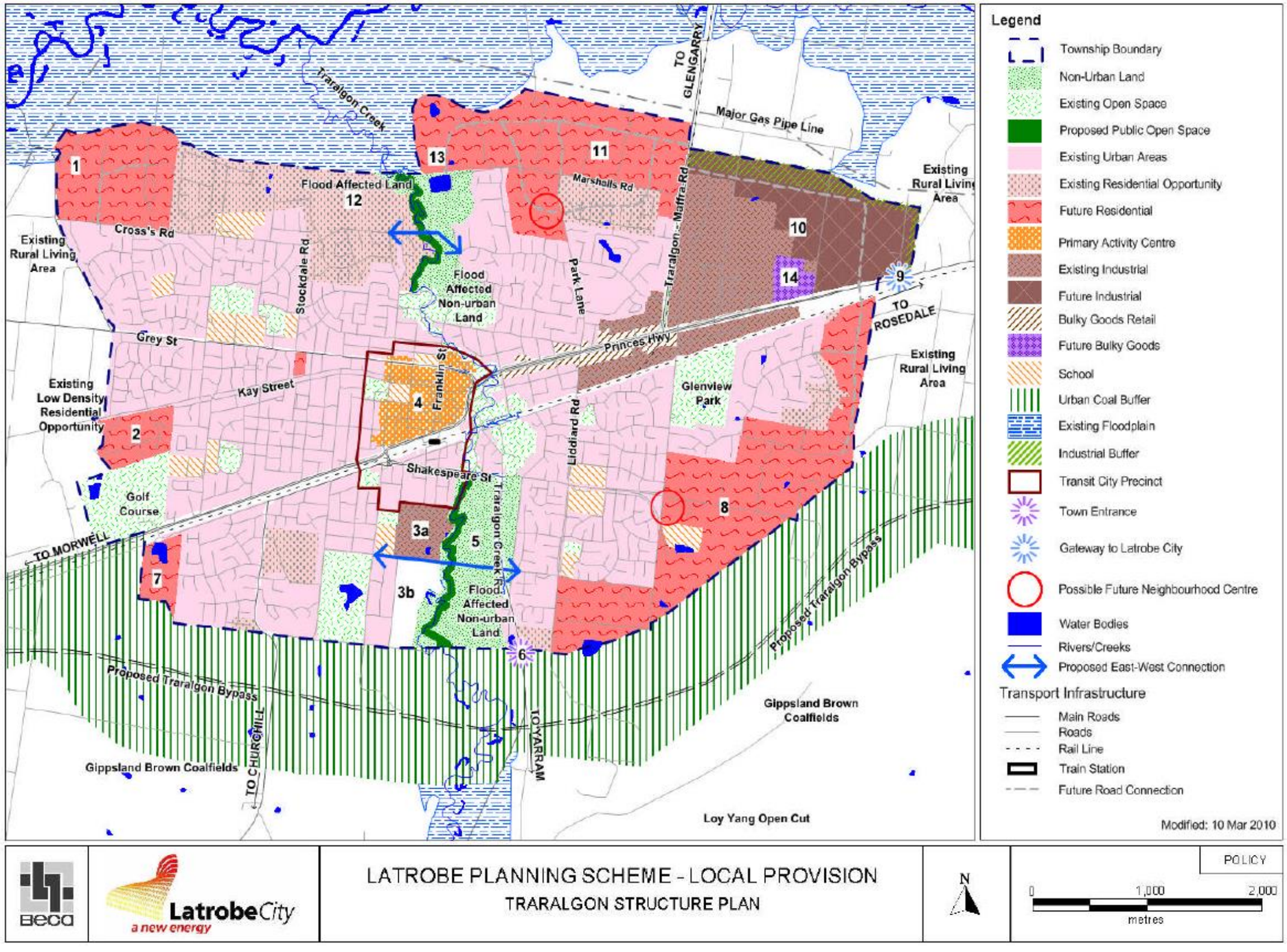


Figure 4: existing traralgon structure plan (2007)



2.2.2 existing transport network

road

The Princes Highway is the principal route though the region and travels east-west. It is a focus for freight, tourist, local and coach traffic. This road runs right through the centre of Traralgon.

Tyers Road provides a link to the north-west which connects with Tyers and beyond. The Traralgon–Maffra Road provides the key link to Glengarry and then on to Toongabbie and Heyfield. To the south, the Hyland Highway runs down past Traralgon South and on to the Tarra Bulga National Park. Also providing access to the south west is the Churchill-Traralgon Road.

A network of local and arterial roads provide access to local towns and settlements within the area, with the Old Melbourne Road forming another key link to Morwell in the west through the suburban areas of Traralgon.

freight traffic

The Victorian Government has a freight and logistics plan called *Victoria - the Freight* State (2013). The document is consistent with both the *Gippsland Regional Plan (2010)* and the *Gippsland Freight Strategy (2013)*. It aligns to the sentiment in the *Gippsland Freight Strategy* (2013) that states that the growing population of Melbourne's south eastern suburbs will stretch the capacity of the existing road and rail network, and increase travel time for freight movements originating from Gippsland. The Gippsland Freight Strategy advocates that continuing to develop connection options, such as the East West and North East Links will be essential if the Gippsland corridor is to form an integral part of a national transport network. It also flags the need for a new airport to serve the south east of Melbourne and the Gippsland area. The document also supports proposed rail access to the Port of Hastings, the establishment of the North East freeway link and construction of West Link as an alternative".

public transport

rail

V/Line operates regional rail services between Melbourne and Bairnsdale (with approximately three daily services operating each direction on weekdays). The majority of rail services however run between Melbourne and Traralgon (on weekdays approximately hourly). As part of the Regional Fast Rail Project rail services were upgraded on the Latrobe Valley Line in October 2006.

Within the vicinity of the study area, stations are located at Warragul, Yarragon, Trafalgar, Moe, Morwell, Traralgon, Rosedale and Sale. The Traralgon Station is separated from the main town centre by the Princes Highway. The *Traralgon Station Precinct Masterplan* addresses the issues created by this separation.

bus

In addition to V/line regional coaches, the study area is served by a Latrobe Valley inter town bus network, as well as a Traralgon town bus network. The *Latrobe Structure Plans–Traralgon* (2007) identified indirect bus services and poor coverage of the growth areas as issues that needed to be addressed.

In Traralgon a central bus interchange is located at Centre Plaza and bus stops are provided at the station. The Latrobe Transit centred precincts - *Traralgon Town Summary* (2006) commented that not all services stop at the station but identified plans to address this issue.

Future improvement of the bus network in the Latrobe Valley is identified as a priority in the *Victorian Transport Plan* (2008). This follows a Bus Service Review for the Latrobe Valley carried out by the Department of Transport (DOT) in 2008. A new bus service timetable for the Latrobe Valley was announced by the Department of Transport in January 2012.

bicycle

As is common in regional Victoria, private vehicles are the most common form of transport, in the study area, however, Council has identified a commitment to improving active modes, along with public transport.

The *Latrobe City Bicycle Plan* (2007-2010) identifies the local cycle network and proposed improvements in Traralgon and the wider area. The cycle network for Traralgon is shown in the figure on the following page.

Extension of the cycle network to cover existing and future growth areas is necessary to promote active transport. The establishment of walkable neighbourhoods, particularly in growth areas and improved pedestrian facilities in rural townships is also required.

In addition, the Gippsland Rail Trail extends to Glengarry and is proposed to then feed through into the centre of Traralgon.

Priority Route Distance: 19,100m
Population: 19,600

N

LEGEND

	LOCAL ROUTES	PRIORITY ROUTES
ON ROAD		
Existing		
Proposed		
OFF ROAD		
Existing		
Proposed		

- SCHOOL
- COMMERCIAL
- PARK / RESERVE
- WATER
- RECREATIONAL FACILITY
- SKATE PARK
- RAILWAY STATION

Figure 5: traralgon bicycle network

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LATROBE BICYCLE PLAN

TRARALGON BICYCLE NETWORK

2.2.3 traralgon bypass

An amendment to the Latrobe Planning Scheme (C42), identifying an alignment for the Princes Freeway – Traralgon Bypass to the south of Traralgon, was approved by the Minister in June 2009. This followed the northernmost of the proposed alignments.

The currently proposed alignment will follow that of the Princes Highway until it veers off to the south just beyond the Latrobe Regional Hospital. It re-joins the existing alignment of the Princes Highway around Kenyons Lane (see Figure 6). It is worth noting that the duplication of the highway at this eastern extent of the city has also proceeded. The location of off-ramps for the freeway is also an important consideration in planning future growth strategies or land uses. Bypass off ramps are currently proposed to be provided around National Road to the west, just beyond the existing urban extent of Morwell, centrally at the Hyland Highway and at the existing urban edge around Minniedale Road.

The timing for the construction of the Princes Freeway – Traralgon Bypass has not been determined at this stage. While it is not anticipated that this will occur in the short term, any long term plan for growth in Traralgon must take into account the anticipated alignment of this bypass. It is anticipated that this bypass will reduce the level of 'through' traffic in Traralgon to a degree. However, a substantial proportion of the traffic currently using the Princes Highway in proximity to Traralgon services areas within and around the city. As such, while it is anticipated that the bypass will lead to some reduction in traffic, the Princes Highway will remain an important thoroughfare.

It is noted that the alignment identified for the bypass was opposed by Latrobe City Council at the time given the implications for urban growth. Should any future reconsideration of the bypass alignment occur, opportunities would exist for any additional land to the north of the alignment to develop for residential purposes.

2.2.4 latrobe regional airport

Latrobe Regional Airport is located on the north side of the Princes Highway between Morwell and Traralgon, approximately 150 kilometres from Melbourne. It is owned by Latrobe City Council and managed by the Latrobe Regional Airport Board, which comprises representatives from local government, the aviation sector, related firms and the local community.

Aurecon undertook a review of the existing 2009 Master Plan for Latrobe Regional Airport and established a planning framework that will facilitate development at the airport site over the next 20 years.

Planning Scheme Amendment C26 included specific planning controls designed to protect the operations of the airport from the encroachment of sensitive land uses or inappropriate development. While that Amendment sought to remove the existing Airport Environs Overlay, this was recommended by the Panel for retention as well as the introduction of two new schedules to the Design and Development Overlay to provide guidance on the heights of buildings within flight paths. It is understood that further modelling regarding the noise impacts associated with the airport and longer term strategic opportunities may require further consideration.

The land designated as the Latrobe Regional Airport comprises 200 hectares of relatively flat, open land used for a variety of aviation and related uses, including:

- Movement area consisting of a main sealed runway, a secondary unsealed runway, a glider facility, taxiways, RPT Apron and a Southern Apron.
- Hangars including Latrobe Valley Aero Club hangars and Gippsland Aeronautics.
- Manufacturing Precinct, Glider facility and private hangars.
- Terminal area including the terminal building, roads and car parks and engineering services.
- Support facilities including aircraft fuelling, aircraft maintenance, airport maintenance and the Latrobe Valley Aero Club.
- Operational facilities including navigational aids and rescue and fire fighting services.

Key services and estimates of air traffic movements were identified by the *Latrobe Regional Airport Interim Planning Provisions 2008-09 Strategic Planning Background Report* (2008), as follows:

- Employment and business opportunities with approximately 150 staff engaged by the various businesses located at the Airport including Gippsland Aeronautics, East Coast Aviation, and the Latrobe Valley Aero Club;
- State emergency services including air charter, Helimed 1 air ambulance, regional State Emergency Service (SES), a permanent base for Country Fire Authority (CFA) and Department of Sustainability and Environment (DSE) fire fighting aircraft;
- Recreational and tourism facilities, including three flying schools, tandem skydiving, gliding, joy fights, aerobatic flights, air cadets and private hangars for recreational aviators;

- Air traffic movements were estimated at approximately 25,000 per year in 2005, including charter flights, flight training, agricultural work, Helimed 1 operations, community service flying, private and business flights.

The Latrobe Regional Airport land contains significant biodiversity assets within the established conservation zones of the site. The land has native vegetation offsets that are managed for conservation purposes by Latrobe City Council.

The Latrobe Regional Airport represents a major regional asset with considerable existing investment. It is recommended that consideration be given to the long term needs and opportunities of the aerodrome in a broader strategic context, including the land requirements for the airport. If these cannot be accommodated in the existing location, it may be worth considering a more appropriate, alternate site in the medium to long term.

hansen

traralgon growth area framework

existing transport and access

legend

- rail line
- proposed bypass
- proposed bypass off ramps
- main roads
- gippsland plains rail trail
- cycle path
- train station
- bus line
- latrobe regional airport

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Figure 6: existing transport and access

2.3 infrastructure

Issues, constraints and opportunities relating to the provision of infrastructure and servicing are important considerations in developing future urban development growth options within the study area. The likely capacity of existing infrastructure and services to cater for potential future development needs to be identified, along with any constraints to urban growth and opportunities for delivering more efficient or sustainable outcomes.

This report uses the findings from previous studies of development potential and constraint analysis for townships in the Latrobe Valley. Given the extent of the study area, infrastructure is considered at a high level and would require further detailed analysis on a precinct by precinct or site by site basis.

Infrastructure associated with urban growth is generally identified at the precinct level. While Council and other relevant State Government agencies undertakes the provision of higher level infrastructure, local infrastructure costs are shared between Council and any developer. This requires that relevant mechanisms (most commonly the Development Contributions Plan Overlay which is currently under review) be applied to the land at the time it is approved for development.

2.3.1 sewer

Sewage from the region is collected by Gippsland Water and discharges into the Regional Outfall Sewer (ROS). The ROS currently transports sewage to the Golden Beach ocean outfall, via the Dutson Downs wastewater treatment lagoons, however, the operation of the ROS has altered since completion of the Gippsland Water Factory. The Gippsland Water Factory treats up to 35 million litres of domestic and industrial wastewater daily. Significant scope exists to cater for future growth in terms of sewage treatment and accommodate future growth within Traralgon and surrounds, including Glengarry.

Reticulation mains (as well as external trunk mains) will need to be constructed as part of any proposed development to service new lots created.

The township of Tyers is not serviced by reticulated sewerage and is not intended to be reticulated in the immediate future. However, Latrobe City will continue to explore the feasibility of sewerage reticulation in the future, given existing public health issues with the treatment of wastewater on the townships smaller lots.

2.3.2 water

Gippsland Water is the responsible authority for the provision of water supply to the Gippsland region, including Traralgon, Tyers and Glengarry.

The Moondarra Reservoir currently supplies raw water to treatment plants in the region, including the Tyers Water Treatment Plant. It is anticipated that the Reservoir has sufficient capacity to cater for significant additional development within the study area, subject to necessary upgrades to existing treatment plants and supply mains.

Reticulation mains will need to be constructed internally within any proposed development, and a water supply service must be provided to all new lots created within a development.

<u>recycled water</u>

At present, there are no alternative options for reuse of treated effluent (third pipe supply schemes) within the region for use by the community. Completion of the Gippsland Water Factory provides significant community reuse opportunities.

The Gippsland Water Factory has capacity to produce around 8 million litres of high quality recycled water each day for use by local industry and deliver a range of benefits for the Gippsland region including addressing the odour currently created by the open channel section of the system, as well as watering of open spaces, playing fields, etc.

<u>drainage</u>

A drainage scheme is recommended for large scale drainage of growth areas that would include retarding basins and designated flow paths. The drainage design should be undertaken prior to development of lots in order to minimise flooding impacts.

Water Sensitive Urban Design (WSUD) is required to manage increased runoff and degraded water quality as a result of urban development. Clause 56 of the Victorian Planning Provisions applies to new developments, and refers to the management of water quality and quantity that can be achieved through WSUD elements as part of the drainage system. It is noted that WSUD principles have been incorporated into recent development plans prepared in Latrobe.

The capacity of the existing traditional drainage network adjacent to the proposed growth areas should be determined, and be incorporated into new WSUD drainage design for Traralgon, Tyers and Glengarry. Management of increased runoff volumes and peak flows from new developments are important to maintain the existing drainage network capacity. There is an opportunity to establish public open space corridors along drainage lines within new developments. WSUD elements such as wetlands can provide valuable amenities to these public open spaces.

2.3.3 gas

Two organisations are responsible for the supply and distribution of natural gas to the Gippsland area: GasNet and Origin Energy. GasNet transmission lines run between Longford and Melbourne supplying natural gas to reticulation systems in the Gippsland area. Origin Energy reticulations connect to the GasNet transmission lines distributing gas to the respective communities.

Origin Energy (OE) have some reticulation infrastructure in the vicinity of the study area. To service additional load, augmentation of the existing reticulation plus the upgrading of supply facilities would most likely be required. Origin Energy Asset Management (OEAM) have stated that wherever possible they prefer to utilise existing connections to GasNet transmission lines to avoid costs associated with establishing a new connection.

It is noted that all the urban areas within Traralgon are connected to reticulated gas, but that connections are not currently available in Tyers or Glengarry.

2.3.4 electricity

SP Ausnet is the responsible authority for the provision of electricity to any proposed development within the study area. Their distribution network in the area consists of electrical conductors to transport energy from one point to another and substations to convert electricity from one voltage level to another. SP Ausnet's system operates at 66,000 volts (66kV) for the sub transmission system, 22,000 volts (22kV) for general distribution and 240/415 volts for reticulation to urban and commercial consumers.

Substations converting from 66kV to 22kV, called zone substations, are placed generally in the centre of large electrical load areas. It is anticipated that a number of new 22kV feeders and associated distribution substations would need to be built throughout the study area to accommodate any new additional developments.

2.3.5 telecommunications

Telstra is the responsible authority for the provision of telecommunication facilities within the study area. Telstra states that regardless of the conditions of the development they are obliged under legislation to provide basic communication services. As is normally the case, developers will be required to provide all civil works associated with Telstra cabling works. Telstra cables are able to be placed within the same trenches as electrical utilities which can significantly reduce costs of installation.

In addition to basic communication infrastructure, Telstra are able to provide infrastructure for a "Smart Community" that utilises optic fibres.

2.3.6 key infrastructure issues

The following infrastructure issues in the study area need to be addressed:

- A drainage scheme is recommended for large scale drainage of development areas. The drainage design should be undertaken prior to development of lots in order to minimise flooding impacts. The capacity of the existing traditional drainage network adjacent to the proposed growth areas should be determined and be incorporated into new WSUD drainage design.
- Ensuring appropriate mechanisms to fund infrastructure is in place early is vital. Regard will need to be had to any changes to the development contributions process and the preferred method for obtaining this contribution will need to be established prior to the development of any new growth areas.
- Higher density growth of Tyers is limited based on lack of reticulated sewerage servicing.
- Significant scope exists to cater for future growth in terms of sewage treatment and accommodate future growth within Traralgon and surrounds.
- Augmentation of the existing gas reticulation plus the upgrading of supply facilities would most likely be required for future urban growth.
- The extent of existing infrastructure (particularly pipelines) may constrain development.

2.4 land use, density and urban form

The starting point when planning for growth in existing urban areas is to consider the existing landscape (including all existing land uses) and the current urban settlement patterns (including built form) and investigate whether or not there is the potential for the better utilisation of land.

2.4.1 population density

The main objective of this project is to deliver a strategy for accommodating urban growth to the year 2051. In 2006, the urban centre of Traralgon (i.e. the Traralgon Structure Plan extent) had an area of 24.1 square kilometres (km2) and a population of 28,259 persons, giving a density of 911 persons per km2 (refer to Table 1).

There is a lack of metrics at a neighbourhood scale (i.e. population data) to allow detailed analysis on population density within the Traralgon CBD and the other precincts that have been defined for this project. However, it is possible to make some general comparisons against the Traralgon Structure Plan extent and other inner urban areas.

The table below illustrates a sample of densities for inner urban areas including both metropolitan Melbourne and regional Victoria. It demonstrates that the *Traralgon Structure Plan* area has a comparable population density to the central area of Geelong and other regional centres, and is therefore typical of a regional city. As can be expected, it is considerably lower than inner metropolitan areas such as St Kilda, the inner city bayside suburb in Port Phillip and Melbourne CBD.

Location	Total population (place of usual residence)	Total area (km^2)	Density persons per km^2
Melbourne Inner SLA (CBD)	11,591	1.9	6,101
St Kilda SLA	49,798	8.8	5659
Bendigo Central SLA	17,778	15.6	1,140
Ballarat Central SLA	32,887	34.1	964
Geelong SLA (central core)	11,896	12.7	936
Traralgon SLA	28,259	445.45	63
Traralgon Structure Plan area	21,961	24.1	911
Traralgon – Traralgon East	23,211	91	255
Glengarry UCL	678	1.3	522
Tyers UCL	242	2.2	110

Table 1: comparable population densities

2.4.2 housing mix

The study area provides for a range of residential areas, densities and a mix of housing stock. These include the provision of land zoned Residential 1 Zone (R1Z), Low Density Residential Zone (LDRZ), Rural Living Zone (RLZ) and Farming Zone (FZ). Many areas, particularly close to the Traralgon city centre, have significant architectural character and streetscape significance. There are also substantial residential areas that are comprised of government built housing, which are well maintained, and are well supported by community infrastructure. Again, these are in areas in close proximity to the Traralgon city centre.

It is noted that outside the areas with close proximity to the Traralgon city centre, there is a distinct lack of easily accessible community infrastructure.

2.4.3 impacts on settlement patterns

The impact of the railway, river and the highway is significant. The railway line has limited points or opportunities to cross which in turn causes poor connectivity between north and south Traralgon. The river provides similar connectivity issues to accessing the Traralgon city centre from the east. Continuity of the urban area in either a north-south, or east-west, direction is, however, not overly compromised. The railway station is well located to allow effective connection with the main street spine.

2.4.4 highest and best use of land

Using land for its highest and best use also presents the opportunity for the revitalisation of the local environment for people who live and work in the area and helps identify areas for growth. Development will be required to make better use of the land to increase the number of jobs available to local people, provide a better range of shops and accommodate new homes and open spaces. In the study area there are a number of areas with potential redevelopment opportunities, in relation to intensification of existing land uses or the reallocation of uses to achieve ‘highest and best’ use of the land. The most pertinent of these are discussed below.

traralgon cbd

Within the Traralgon city centre, the spacious feel of the centre is due to the generous road widths, significant setbacks, and extensive open space and parkland areas. These elements support the significant scale of some of the commercial buildings, although it is noted that much of Traralgon is limited in its bulk and height. Franklin Street is an extremely well presented and impressive “main street” which is punctuated by boulevard scale east-west roads, Seymour Street and Hotham Street, which have some quality buildings marking the intersections. The generous nature of the Traralgon city layout has created opportunities in relation to the ability to develop mixed use and multi-story developments, particularly within the centre of the blocks and on clearly underdeveloped sites fronting the Princes Highway. However, there are also constraints in terms of the need to respect the existing form and character, but also in relation to the economic feasibility of developing remaining sites within the CBD, often referred to as the Traralgon Activity Centre.

Investigations into the future of the Traralgon Activity Centre (TAC) will be part of a separate study commissioned by the Latrobe City Council (The *Traralgon Activity Centre Plan* project commenced late 2009). There is the opportunity to increase the current residential densities within the existing TAC area to accommodate future residential growth whilst still maintaining the area as the key commercial centre. The existing urban scale of the TAC, including elements such as wide streets and low density (including areas of underutilised space like grade car parks) can justify the potential increase in scale and density.

It is acknowledged that the ability to see continued growth within Traralgon and Latrobe City, will also require sufficient employment and retail service bases. Included in the current composition of the TAC area is the largest retailing offer in Latrobe City with approximately 75,000sqm of land development for retail use with an approximate 10% vacancy rate. The TAC also has the largest non-retail floorspace (business services such as solicitors, accountants, banks etc.) in Latrobe City with approximately 44,700sqm.

It is further acknowledged that in developing the TAC, integration is required with its surroundings by connecting existing communities, future development sites, public transport nodes and local amenities. The TAC is bounded by roads, a railway and waterways, which raise both constraints and opportunities for the successful integration of the TAC with its surroundings. New development will be required to adopt an urban design approach that achieves successful integration of new and existing land use and improved pedestrian movement and public transport access.

The draft *Gippsland Regional Growth Plan* identified that success in growing Latrobe City as a single urban system will support growth within the Princes Highway corridor, including in the regional centres of Bairnsdale and Sale and that accessibility to employment opportunities and higher order services in Latrobe City will enhance the broader region. The 'knowledge' economy identified as driving much of this growth benefits from clustering within a central location.

underutilised land

More efficient use of existing sites will be an important consideration. A lot of sites within the study area are vacant or only occupy a proportion of the site. These are generally located on the fringe of the urban areas. An approach to developing sites that intensifies development, guided by the land use, density and design guidelines, will enable the study area's development potential to be realised.

The relocation and rezoning of existing land use areas within the study area to allow for the growth of existing urban form is another option to explore. For example, after the relocation and remediation of the industrial area in Inner South Traralgon (as proposed by the *Traralgon Inner South Masterplan*), there would be the potential for the expansion of the adjacent existing residential area. This cannot occur however, until an Industrial Study has considered the broader implications of such a transition in land use. This location is appropriate for residential development as it is well located in terms of the TAC, including the Traralgon train station.

rural living and low density residential areas

There is the opportunity to incorporate innovative strategies to include redevelopment of these areas on the outskirts of Traralgon. This can be undertaken by utilising planning tools such as the Development Plan and the Development Contributions Plan Overlay.

2.4.5 small towns, glengarry and tyers

The opportunity to develop other established urban areas exists within the study area context. Whilst the majority of development should be centred around the Traralgon Activity Centre, to take advantage of existing infrastructure, there is also the opportunity to investigate the development potential around other towns in proximity to Traralgon. These areas include Glengarry, Tyers, Churchill and the Traralgon-Morwell corridor. These areas could then be integrated appropriately with infrastructure including public transport.

Glengarry is a small town situated approximately 11 kilometres north of Traralgon. Glengarry was established after the railway arrived from Traralgon in 1883. Glengarry had a population of 1361 residents in 20011. The Glengarry township comprises a primary school, a pre-school, local shops and businesses, public bar and restaurant and sporting and recreation facilities. Glengarry has a reticulated sewerage system.

Tyers is a small settlement located approximately 10 kilometres north-west of Traralgon. It was known as 'Boola Boola' until 1852 when it was named after the surveyor and explorer Charles Tyers. Tyers had a population of 821 residents in 2011. Tyers has limited town centre services and facilities, including a pre-school, primary school, convenience store and service station, public hall and recreation reserves. Tyers does not have a reticulated sewerage system.

2.4.6 character, form and setting

The current composition of Traralgon, including its landscape setting, residential community, town centre, pedestrian and vehicular system and recreational facilities and environmental assets, are important factors in establishing a framework for future growth. The existing urban framework of Traralgon is well defined, legible, generously proportioned and extremely well presented. The streetscape is characterised by wide tree-lined streets, attractive gardens, and a thriving commercial centre.

The definition of Traralgon's existing urban boundary is particularly clear in relation to its northern and southern boundaries. The relationship of the southern residential boundary to the immediately adjacent rural interface is extremely positive, and protects the continued agricultural and environmental value of the Traralgon Creek. East and west of the city, the effects of the Princes Highway, and the competition for exposure and proximity has created a focus for industrial, commercial and outdoors display business uses. For the residential context, lower density residential development occurs on the fringes of Traralgon to the west and east.

The landscape setting of the urban area, including the nearby ranges, rivers and the operating Loy Yang Power Complex are defining elements of Traralgon. Much of the study area enjoys significant views to many of these landscape elements.

2.4.7 built form

In order to take advantage of the opportunities presented by the proposed freeway bypass, one of the key actions under this strategy will inevitably be the need to significantly increase expenditure on civic improvements, particularly in the Traralgon Activity Centre. This expenditure will have flow-on effects for broader townscape improvements and improved quality of the natural and built environments. This is an important element in revitalisation of existing urban areas within Traralgon. The *Traralgon Activity Centre Plan* will be important in driving the appropriate change for this area.

The scale and intensification of land use will be informed by the study area's development constraints and opportunities; including proximity to public transport, and the need to manage the impacts of the surrounding infrastructure. New development will be expected to adopt flexible building types that enable different land uses to coexist. Residential accommodation can sit above retail or office uses located at street level. However, some larger-scale commercial activity will require greater floorspace precluding the development of mixed use buildings.

The improved integration between the built form and relationship to open spaces, streets and roofs should also be investigated further.

As building form becomes denser and the population increases, there will be a greater need for consideration of building quality, particularly as perceived from public spaces. To achieve community support for intensification this is vital and it is worth considering the appointment of dedicated urban designer to provide internal advice about the contribution that will be made to the public realm by proposed built form.

Traralgon is beginning to see some higher quality design outcomes, particularly in relation to medium density development such as the recent award winning community building at The Heights retirement village in the south-west of the town.

2.4.8 heritage

Traralgon and surrounds has a rich and diverse cultural heritage that reflects Indigenous and non-Indigenous settlement in the area. The most evident in the present day landscape is the twentieth century development related to brown coal reserves.

Buildings of note include the Traralgon Post Office and Court House, church buildings and a number of houses in the existing urban area. These tend to be covered by heritage overlays. The presence of heritage does not necessarily constrain development, particularly given the heritage assets are generally central and apply primarily to individual buildings. While some residential precincts are affected by overlays the number is not significant in the broader context.

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traralgon growth area review

existing urban structure

legend

- main roads
- creek
- activity centre
- town centre
- residential growth areas
- residential
- rural living
- industrial / bulky goods
- latrobe regional airport
- latrobe regional hospital

glengarry
tyers
tyers rd
maffra rd
australian paper mill
traralgon west rd
princes fwy
traralgon
old melbourne rd
argyle st
latrobe regional airport
latrobe regional hospital
alexanders rd

Project Ref: 11.101
Dwg No.: DWG-030
Scale: 1:20000 @ A1
1:40000 @ A3
Date: 13.08.2013
Revision: C

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Figure 7: existing urban structure

2.5 community infrastructure

2.5.1 open space

Parkland areas and sports facilities are well located, and contribute to the "garden city" feel of Traralgon. The treatment of pedestrian routes is generally to a high standard and contributes to the high amenity for users of the town centre. Kay Street running east-west on the northern boundary of the Traralgon city centre is a tree lined boulevard 60m in width that is a fine example of the 'garden city' character of Traralgon.

Latrobe City Open Space Plan (213) has recently been adopted by Council and identifies that a major theme to emerge from the research has been a desire to improve open space linkages and connections and that additional strategic planning may be required in order to fully scope and plan for these connections, and hence development of a Municipal Pathways Strategy is recommended. The Strategy also identified that the majority of existing residential areas are generally well serviced and have adequate access to open space facilities. However, consistent with the community identified priorities, the quality and appeal of many of the existing sites could be significantly improved.

Key suggestions, themes and characteristics of the visioning included:

- Establishment / improvement of environmental corridors.
- Enhance linkages and connections.
- Enhance tree planting, habitat and food sources for wildlife.
- Effective / attractive signage (way finding and interpretive).
- Improve urban design outcomes in new residential areas (i.e. casual surveillance).
- Improve the quality and appeal of existing parks, including lighting.
- Preserve and enhance existing parks.
- Welcoming spaces for young people.
- Attractive places for family gatherings.
- Selection of higher quality parks and reserves – destinations.
- Embrace water ways as open space corridors.
- Township linkages.
- Synthetic soccer pitch / multi use synthetic training facility for use by all sports.
- Expansion / enhancement of 'Sports Precincts' .
- Continuous improvements.
- Access for all.
- No dog litter.

In addition to the general themes, there were also specific suggestions for Traralgon, as follows:

- Refocus the Traralgon CBD to embrace the creek and open space corridor through town. Consider development of the opposite bank for mixed residential / commercial developments.
- Establish a new park corridor in Traralgon from the freeway by-pass to (northwestern) flood plain. Incorporate way finding, rest stops, places of interest, botanical gardens, wetlands, educational garden zone, linkages, community gardens, partnerships etc.

It also seeks to establish and promote a Glengarry Heritage Walk.

2.5.2 schools

There are a number of schools within the Traralgon urban area. Primary Schools include:

- Grey Street Primary School (formerly Traralgon Primary School),
- Kosciuszko Street Primary School,
- Liddiard Road Primary School,
- Stockdale Road Primary School,
- St Michaels Primary School,
- St Gabriels Primary School,

There is a secondary school, Traralgon College, which has two campuses, the junior campus (years 7–9) located on Liddiard Road in Traralgon's east, with the senior campus (years 10–12) on Grey St in Traralgon's west. The Catholic secondary school, Lavalla Catholic College also has two campuses, while St Paul's Anglican Grammar School has one campus. Flinders Christian Community College (FCCC) on Liddiard Road is a Prep – Year 12 school (noting this school is soon to relocate). Traralgon also has the Latrobe Special Developmental School catering for students from 5 to 18 years of age with an intellectual disability.

There is also a primary school at both Glengarry and Tyers and a TAFE located next to the Traralgon railway station.

2.5.3 other community facilities

Traralgon has a number of other community facilities. The majority of these are located in the centre of the city including:

- The Performing Arts Centre;
- Traralgon Library;
- Kath Teychenne Community Centre; and
- Traralgon Court House.

There are also a number of other facilities throughout the urban area such as:

- Racecourse, used primarily for greyhound racing, to the south east.
- Elderly citizen centres (which are located primarily centre and north west)
- Child care and kindergartens (well distributed to the west, and to the south east but not to the north east.

Glengarry has a pre-school and community hall, while Tyers has both a kindergarten and community hall.

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traralgon growth area framework

existing community infrastructure

legend

- public open space
- sporting fields
- primary schools
- secondary schools
- latrobe regional hospital
- other community facilities

glengarry
tyers
tyers rd
maffra rd
princes fwy
australian paper mill
traralgon west rd
traralgon
old melbourne rd
argyle st
alexanders rd
latrobe regional hospital

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Figure 8: existing community infrastructure

2.6 biodiversity

2.6.1 flora and fauna

In a planning context, native vegetation is specifically defined as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'. *Victoria's Native Vegetation Management – A Framework for Action* establishes the strategic direction for the protection, enhancement and revegetation of native vegetation across Victoria. The main goal of 'the Framework' is to achieve a Net Gain in the extent and quality of native vegetation.

The subject site occurs entirely within the bioregion known as Gippsland Plain which runs from Melbourne in the west through to East Gippsland.

Ecological Vegetation Classes (EVCs) are the basic mapping units used for biodiversity planning and are defined by a combination of floristics, lifeform, position in the landscape, and an inferred fidelity to particular environments. There are limitations with using EVC mapping as the sole tool for identifying areas of native vegetation because some forms of native vegetation, particularly native grasslands and woodlands are often not mapped. Due to widespread clearing in the past, there is very little in the way of remnant native vegetation patches in and around Traralgon. The remaining vegetation mainly occurs on roadsides such as Old Melbourne Road and along the various waterways such as Traralgon Creek and Loy Yang Creek. The dominant EVCs of the area are Plains Grassy Woodland, Swampy Riparian Woodland and Floodplain Riparian Woodland, all of which are classified as endangered within the Gippsland Plain bioregion. An EVC map of the study area is included in Section 6.1.5 native vegetation.

Under the State government *Planning and Environment Act* (1987) and *Victoria's Native Vegetation Management: A Framework for Action* (2002) if native vegetation is required to be removed for development or construction, the permit applicant must demonstrate efforts to avoid, minimise and offset such removal. A native vegetation offset is any works or other actions to make reparation for the loss of native vegetation arising from the removal of native vegetation allowed as part of a planning permit. An offset may be an area of existing remnant vegetation that is protected and managed; an area that is revegetated and protected; an area that is set aside for regeneration or restoration, or any combination of the above.

Within the study area there are a number of offset sites, the most extensive of which occurs along Old Melbourne Road between Traralgon and Morwell and another in the property occupied by the Latrobe Regional Airport along Airfield Road. Both areas are of very high conservation significance and any development that may affect these remnant patches of native vegetation should be avoided.

DSE databases indicate the presence of a number of rare and threatened species and a listed floristic community within the study area, including (but not exclusive of) the following:

- *Litoria raniformis* (Growling Grass Frog)
- *Pseudophryne dendyi* (Dendy's Toadlet)
- *Pseudophryne semiamorata* (Southern Toadlet)
- *Dasyurus maculatus maculatus* (Spotted-tail Quoll)
- *Anthochaera phrygia* (Regent Honeyeater)
- *Varanus varius* (Lace Monitor)
- *Cinclosoma punctatum* (Spotted Quail-thrush)
- *Prototroctes maraena* (Australian Grayling)
- *Macquaria australasica* (Macquarie Perch)
- *Galaxiella pusilla* (Dwarf Galaxias)
- *Eucalyptus yarraensis* (Yarra Gum)
- *Hypsela tridens* (Hypsela)
- *Dianella amoena* (Matted flax-lily)
- *Xanthosia leiophylla* (Parsley Xanthosia)
- *Pomaderris vaccinifolia* (Round-lead Pomaderris)
- *Craspedia canens* (Grey Billy-buttons)
- *Ranunculus papulentus* (Large River Buttercup)
- *Euchiton umbricola* (Cliff Cudweed)
- *Lachnagrostis punicea ssp. punicea* (Purple Blown-grass)
- *Amphibromus fluitans* (River Swamp Wallaby-grass)
- Central Gippsland Plains Grassland community (FFG)

Gippsland Red Gum (*Eucalyptus tereticornis subsp. mediana*), Grassy Woodland and Associated Native Grassland is a critically endangered ecological community listed under the Federal *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act). As can be seen on the map below, there is potential for this community to be present throughout the study area and fine scale assessments should be undertaken for any large developments in order to determine this. Remnant large old Gippsland Red Gum (*Eucalyptus tereticornis subsp. mediana*) and River Red Gum (*E. camaldulensis*) are scattered throughout the area and all effort should be made to protect these biodiversity assets.

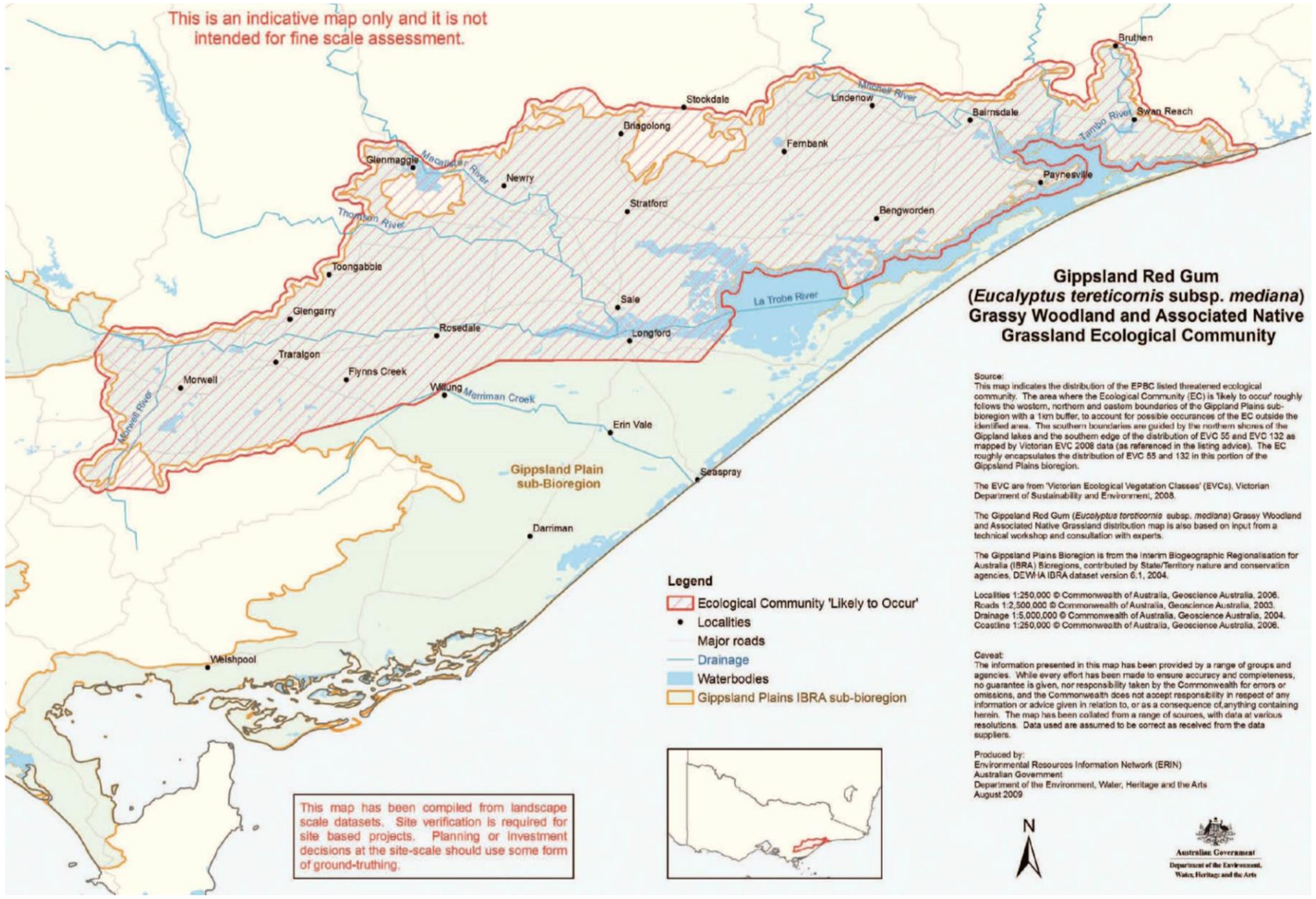


Figure 9: gippsland ecological communities

NOTE: This map was sourced from
http://www.environment.gov.au/epbc/publications/pubs/gippsland-red-gum.pdf

Biological significance is a rating of the contribution that biological assets of a site make towards the conservation of Victoria's native biodiversity. The assessment and classification of biological significance is one aspect of the assessment of conservation values. Sites of biological significance are areas that should be encouraged to be identified for conservation management action and reservation. Sites of biological significance that exist within the study area include but are not limited to a section of Wade Creek off Scrubby Lane, Traralgon West Rail Reserve (at the top end of Bank Street) and Traralgon Racecourse East Rail Reserve.

Subject to a detailed assessment, it will be important to continue to encourage protection and management of rare and threatened species and sites of biological significance. The Biodiversity Precinct Structure Planning Kit is encouraged to be used when preparing new development plans and when assessing planning permits for new urban estates in the study area.

2.6.2 bushland reserves

Bushland often refers to land 'which has vegetation that is either a remnant of the natural vegetation on the land or, if altered, is still representative of the structure and floristics of the native vegetation'. Bushland reserves can have areas of native vegetation, vegetated or open wetlands or waterways (rivers, streams, and creeks), rock outcrops and bare ground (generally sand or mud).

The primary value of Council's bushland reserves is for the conservation of natural values and many of Council's bushland reserves support threatened or endangered vegetation communities, as well as providing habitat for rare or threatened species. Many of Council's bushland reserves also support recreation and are highly valued by the community, with some being actively cared for by Committees of Management and Friends Groups. The reserves also have aesthetic and scientific/educational value, as well as both European and Indigenous cultural heritage values. One particular area of significance within the study area is the Traralgon Railway Reservoir Conservation Reserve located on the southern edge of the township.

2.6.3 waterways and wetlands

Waterways are diverse and complex ecosystems and sustain diverse species of native plants, fish and animals; all of which play a vital part in maintaining environmental balance. Healthy waterway systems also contribute to water for homes, farms and businesses; an attractive and enjoyable recreation destination for tourists, families and industries; and natural processes for breaking down sewage and agricultural runoff. Important waterways in the study area include the Latrobe River, Traralgon Creek, Rintoul Creek and Eaglehawk Creek.

A wetland is an area of land covered either permanently or occasionally by water. Wetlands can either be natural or constructed and the water in

them can be still or flowing. The large permanent pools and ponds of constructed wetlands are an excellent method of treating stormwater for a number of reasons. Wetlands have a high aesthetics appeal, they can remove pollutants and sediment from stormwater, they can create habitat and are relatively easy to maintain. Natural and constructed wetlands can provide diverse habitat for aquatic and terrestrial species. Often wetlands are home to a wide range of animals such as water birds, frogs and fish. Significant wetlands in the study area include those occurring at the eastern end of Australian Paper's aeration ponds south of the Latrobe River and within property owned by St Pauls Anglican Grammar School north of Cross's Road.

2.6.4 linear corridors

Important remnant vegetation (particularly Gippsland Plains Grassland Community, Forest Redgum Grassy Woodland Community, Wet Grassland and Sedge Grassland) containing habitat for wildlife occurs in current and disused rail and road corridors.

Important linear rail corridors in the study area include:

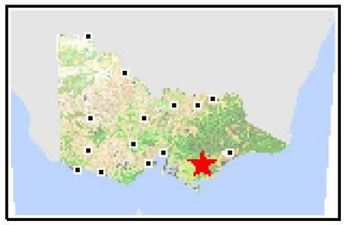
- A section of the Gippsland Rail Trail from Traralgon to Maffra.
- Traralgon West—4000m of railway corridor extending onto Bank Street with Gippsland Plains Grassland of state significance in good condition with the rare Grey Billy Buttons Craspedia canens and Spur Velleia Velleia paradoxa.
- East of Traralgon Racecourse—130m of railway corridor of national significance in moderate condition, with the nationally rare Matted Flax Lily Dianella amoena.
- West of Minniedale North Road—130m of railway corridor of regional significance in poor condition.
- West of Sheepwash Creek—1005m of railway corridor of national significance in moderate condition with Matted Flax Lily Dianella amoena, Stream Sedge Carex brownii, and Broad-leaved Stinkweed Ovaria ovata.

Significant linear road corridors in the study area include:

- Old Melbourne Road, Morwell / Traralgon West (from Latrobe Road east for 1 km, north side) with native grasses and sedges, also containing several species of orchids and other grassland species including lilies and 79 native plant species have been recorded.
- Tyers/Glengarry Road, Glengarry (600m west of Traralgon/Glengarry Rd, west for 100m, southside) containing a stand of rare Yarra Gums.

Map created Tue Jul 02 07:35:25 EST 2013

Department of Environment and Primary Industries — Victoria



ROADS
- Freeway
- Highway
- Main Road
- Secondary Road
- Local Road
- 2WD (Unsealed)

WATERCOURSES
- Major Watercourse
- Minor Watercourse

1994 WETLAND CATEGORIES
- Sewage Ponds
- Salt works
- Freshwater Meadow
- Shallow Freshwater Marsh
- Deep Freshwater Marsh
- Permnanent Open Freshwater
- Semi-permanent Saline
- Permanent Saline

WATERBODIES
- Watercourse Area
- Permanent Waterbody
- Wetland Area

BUILT UP AREAS

Tyers
Glengarry West
TRARALGON
Flynns Creek Upper
Pine Gully Reservoir
Glengarry West Rd
Tyers - Walhalla Rd
Brown Coalmine Rd
Main Rd
Rintoul Creek
Eaglehawk Creek
Four Mile Creek
Loy Yang Creek
Traralgon - Maffra Rd
PRINCES HWY
Traralgon West Rd
Tyers Rd
Grey St
PRINCES ST
Bank St
SHAKESPEARE ST
Boyds Creek
Morwell - Maryvale Rd
Maryvale Rd
Alexanders Rd
Plough Creek
Junier St
Waterhole Creek
Vary St
Princes Dr
Tanjil East Rd
Traralgon West Rd
Tramway Rd
Monash Way
Hazelwood Rd
Sanders Rd
Mattingley Hill Rd
Firmins Lane
Traralgon Creek
TRARALGON CREEK RD
BARTONS LANE
HYLAND HWY
Sheepwash Creek
Scales Rd
Flynns Creek
Wades Creek
8121 508751
8121 513745
8121 513743
8121 522741
8121 527739
8121 533740
8121 536753
8121 540748
8121 543743
8121 499737
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GDA

Victoria

Figure 10: native vegetation

2.7 economic conditions

The existing economic environment, particularly in relation to the commercial and industry structure of Traralgon and surrounding localities of Morwell and Moe, is an important consideration in forward planning for urban growth. Understanding the general economic overview provides a basis to better inform future urban development growth options within the study area that has regard for the structural characteristics of the regional economy. In particular, the combined data for these localities provides an understanding of the wider economic values in the study area, and highlights the drivers of economic activity in the region.

Key economic strengths other than power supply in the Latrobe valley include timber processing, paper product manufacturing, agriculture, horticulture and tourism. The region also has one of Australia's strongest dairy industries due to rich soil and dependable rainfall however, dairy farms and industries are not located in and around the Traralgon environs and study area.

2.7.1 key economic generators

As shown in Table 2 and Table 3, the largest number of businesses in the Traralgon region was classified as property and business services (21%), followed by construction (20%), and retail trade (14%). This trend in the top three industries in Traralgon is consistent with those recorded for Morwell, Moe, Latrobe Valley and Victoria as a whole. Agriculture, forestry and fishing are also significant components of the local economy comprising 12% of the local economic base.

Industry	Traralgon (C)	Morwell (C)	Moe (C)	Latrobe Valley	Victoria
Agriculture, forestry and fishing	240	156	108	750	49 980
Mining	6	3	0	9	726
Manufacturing	75	75	60	222	28 944
Electricity, gas and water supply	0	3	0	3	486
Construction	402	204	153	837	74 769
Wholesale trade	51	42	12	129	22 971
Retail trade	282	240	186	765	54 909
Accommodation, cafes and restaurants	57	45	18	126	13 446
Transport and storage	123	123	51	339	29 628
Communication services	15	12	6	42	5 994
Finance and insurance	96	72	33	207	33 474
Property and business services	417	285	138	924	124 728
Education	15	21	6	45	3 828
Health and community services	126	63	39	243	21 783
Cultural and recreational services	45	39	15	111	11 652
Personal and other services	63	48	33	153	13 518
Total	2 013	1 431	858	4 905	490 836

iource: ABS (2009)

Table 2: industry distribution (numbers)

Industry	Traralgon (C)	Morwell (C)	Moe (C)	Latrobe Valley	Victoria
Agriculture, forestry and fishing	12%	11%	13%	15%	10%
Mining	0%	0%	0%	0%	0%
Manufacturing	4%	5%	7%	5%	6%
Electricity, gas and water supply	<1%	<1%	<1%	<1%	<1%
Construction	20%	14%	18%	17%	15%
Wholesale trade	3%	3%	1%	3%	5%
Retail trade	14%	17%	22%	16%	11%
Accommodation, cafes and restaurants	3%	3%	2%	3%	3%
Transport and storage	6%	9%	6%	7%	6%
Communication services	1%	1%	1%	1%	1%
Finance and insurance	5%	5%	4%	4%	7%
Property and business services	21%	20%	16%	19%	25%
Education	1%	1%	1%	1%	1%
Health and community services	6%	4%	5%	5%	4%
Cultural and recreational services	2%	3%	2%	2%	2%
Personal and other services	3%	3%	4%	3%	3%
Total	100%	100%	100%	100%	100%

Source: ABS (2009)

Table 3: industry distribution (percentage)

However, the composition of businesses is not reflected in gross revenue generated by businesses and organisations in each of the industry sectors within Latrobe City. As shown, electricity, gas and water supply industry accounted for the largest share of economic output, despite accounting for less than 1% of businesses in the region.

Other industries accounting for large shares of economic output include manufacturing (17.8%), retail trade (7.41%), and mining (7.15%) (Latrobe City Council, 2007). Thus, energy and manufacturing are the dominant sectors in the regional economy. Taken together across all sectors, Latrobe City is estimated to have an annual economic output of $4.7 billion, with an annual value of exports of $1.9 billion and imports of less than $1 billion (Latrobe City Council, 2007).

2.7.2 employment

Although employment in the region is dominated by the energy and manufacturing sector, employment is more widespread within the tertiary and services industries. Based on the 2011 Census, the top three industries of employment for Traralgon were health care and social assistance (13.3%), followed by retail trade (12.5%), followed by manufacturing (9.8%).

2.7.3 future investments in coal

A major strength of the region is the extraction of coal resources for the generation of electricity, with four major power generators in the Latrobe Valley representing 85% of all electricity generated in the State of Victoria.

Technological advances will improve emissions in coal mining/production which will assist in securing this industry in Latrobe Valley over the long term. A study undertaken by GHD in 2005 on the future of coal mining in the Latrobe Valley identified a production capacity of approximately 500 years, with 53,000 Mt of 'economic' coal reserves and an annual extraction of approximately 65 Mt of coal for the generation of electrical power. Of particular significance south east of Traralgon township is Loy Yang's power station (the largest in Victoria), and adjacent open cut brown coal mine (the largest in Australia) (Loy Yang Power 2009). The Loy Yang

mine is anticipated to expand east then south in the future and will double in size over time.

The GHD study recommends that mining areas likely to proceed should be protected by land zoning to prevent alternative incompatible land uses. Two locations were identified in Traralgon for potential future mine development. However, the identified possible future mining areas appear to be outside the defined study area for the TGAR.

Mining activities are closely related with electricity generation and/or electricity, gas and water supply industry, providing a source of competitive advantage to the region due to the close proximity between natural resource supply and downstream energy activities. Indeed a review of major developments and investment in Latrobe region indicates that the bulk of major projects are energy related.

2.7.4 industrial land availability

Latrobe Valley contains some of the largest areas of zoned industrial land in Victoria. Six major regional centres (Ballarat, Bendigo, Latrobe Valley, Shepparton, Warrnambool and Wodonga) comprise approximately 20% of the total supply of industrial land in provincial Victoria (excluding Geelong). Latrobe City is the location of a number of significant manufacturing facilities many of which are associated with the electricity generation industry and other ancillary coal mining activities. The timber industry is also a significant industry and employer. Industrial areas in the municipality are focused on the four main urban areas with Morwell being the dominant area of industrial activity, even when the Morwell Specialised Industrial Area (the areas of industrial land to the south-east of Morwell also affected by the State Resource Overlay) is not included in consideration. The land in the Morwell Specialised Industrial Area has restricted uses which must have an association with the coal resources of the area.

Parsons Brinkerhoff undertook an audit of industrial land in provincial Victoria (2008), which indicated that the vacancy rate for industrial land in Latrobe was relatively low. The vacancy rate is lowest in Morwell Statistical Local Area (SLA) at 12%, with the other two SLA's with less industrial land having vacancy rates of about 25%. Nonetheless, Morwell has about three times as much vacant industrial land as the rest of Latrobe City combined. At the time of the initial audit, the proportion of vacant industrial land for Latrobe City Council was around 210ha. This represented approximately 14% of the overall supply of industrial land.

Latrobe City requires a clear understanding of industrial land requirements (which was also highlighted in the Panel report to Amendment C62 to the Latrobe Planning Scheme) as it is difficult to allocate land without knowing forecast demand.

The 2009 Urban Development Program (UDP) for Regional Victoria provides an analysis of supply and demand for residential and industrial land across parts of regional Victoria. This study found that there were approximately 1,180 hectares of zoned industrial land in Latrobe City which can be regarded as conventional industrial land. Of that total, 281 hectares was identified as supply (or vacant) and of that, 179 hectares has been identified as developable. The study found that there was 22 hectares of net developable land at Traralgon.

The UDP found that based on analysis of aerial photography and stakeholder consultation, the consumption of land in the Latrobe Urban Area Total for industrial purposes has averaged 3.1 hectares per annum between 2006 and 2009. The majority of consumption has occurred in Morwell and Traralgon. Over the same period consumption in the Morwell Specialised Industrial Area was 2.6 hectares per annum. In total, there is in excess of 15 years of industrial zoned land within the municipality based on the average annual rate of land consumption in the period 2006 to 2009. However, this is not evenly distributed across the urban areas; with supply in Traralgon currently estimated at around 12 years

That assessment was qualified as follows:

Firstly, identifying the future location and amount of consumption of industrial land is an uncertain task. Current levels of consumption are used as an indication of the adequacy of industrial land supply. However, the level and location of future consumption may change due to:

- The investment and business activity behaviour of the private sector
- Trends in the global economy
- Propensity for certain activities to agglomerate
- Directions in technology
- Population trends
- Environmental impacts and adaptation
- Social attitudes.

Secondly, that further large scale industrial investment, particularly with those associated with the coal mining, electricity generation and timber industries may result in a higher average rate of consumption in the longer term.

2.7.5 land for bulky goods retailing

MacroPlan was engaged by Latrobe City Council in 2009 to undertake an updated bulky goods needs assessment within Moe, Morwell and Traralgon. The previous 2007 review of need for bulky goods floorspace undertaken by the same consultants had confirmed that there was a market gap of around 25,000sqm in floorspace, representing a need for an additional 8 to 10 hectares of land.

That report claimed that a significant market gap exists between the supply of, and demand for, bulky goods retail floorspace within the main trade area of approximately 28,000sqm. Furthermore, the report identified that this market gap is expected to increase to 73,000sqm by the year 2023. In order to close this market gap, two dedicated bulky goods retail centres of approximately 15,000sqm–20,000sqm each are required.

The report then analysed a number of locations for the siting of these centres. Four sites were then identified as displaying the highest likelihood of supporting a successful and sustainable dedicated bulky goods retail precinct. Three of those sites sit within the Morwell-Traralgon Corridor. Council, therefore, needed to consider their policy position in relation to the development opportunities within this corridor.

Council has recently rezoned a portion of land previously identified for industrial expansion near Stammers Road to the east of Traralgon (about 11h) through Amendment C39 part 1 and has further rezoned an additional parcel at the western edge of Morwell (approx 13h) through Amendment C39 Part 2. These two parcels were those recommended within the MacroPlan analysis and meet the identified needs for the short–medium term.

An additional assessment of bulky goods needs was provided by proponents of a development seeking to utilise a site in Traralgon West for such purposes. This report (*Latrobe Bulky Goods Retail Need Analysis Traralgon West*, MacroPlan Dimasi 2012) identified that there was a need to provide land above and beyond that identified in the original MacroPlan report. However, a peer review of that assessment (*Review of economic support for the Masters development proposal in Traralgon West*, Tim Nott 2012) identified:

- There is no need to rezone any additional land to accommodate bulky goods uses and the two recently rezoned sites can easily accommodate demand to 2026.
- Both the original MacroPlan report and the more recent development justification are based on a significant underestimate of existing bulky goods retail space.

2.7.6 agricultural land

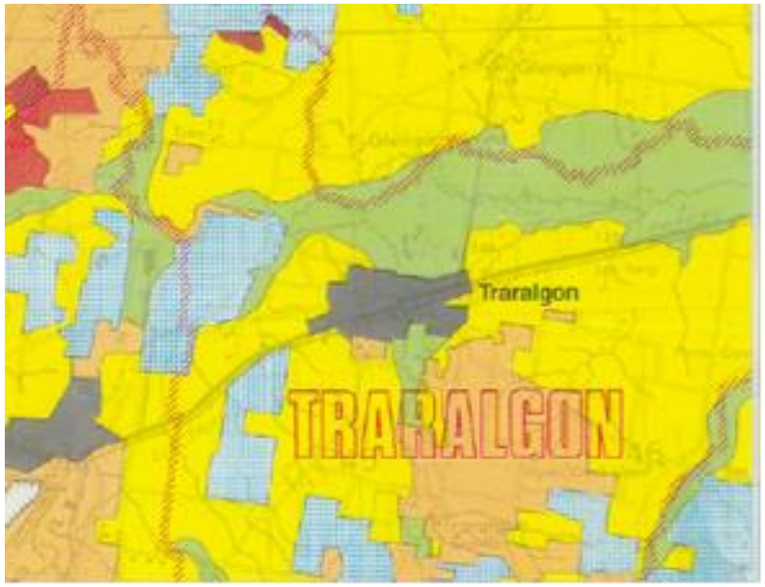
A mapping exercise of agricultural land was undertaken for Gippsland in 1984 by Ian Swan and Andrew Volum for the then Department of Agriculture. The underlying land quality should not have altered significantly in the intervening years and the report is therefore still a relevant consideration. Agricultural land was sorted into 6 classes of agricultural land.

- Class 1: is the most versatile with the highest inherent productivity. It is capable of the majority of agricultural uses or is very highly productive pasture land under flood irrigation. The growing season is 12 months or 11 months with readily utilised underground water.
- Class 2: class 2 land is highly versatile but has a lower level of inherent productivity than class1. It is capable of the majority of agricultural uses but requires greater inputs than class 1 to achieve high production. The growing season is at least 11 months or 10 months with readily utilised underground water.
- Class 3: land generally of limited versatility but is very good dairying and grazing land. It is sometimes suitable for orchards and extensive area cropping but not suitable for intensive uses such as vegetable growing.
- Class 3a: sub class 3a is suitable for more intensive uses providing particular care is taken to prevent soil erosion, or supplementary irrigation overcomes moisture limitation in the summer. The growing season is at least 10 months or 9 months with readily utilised underground water.

A large swath of land in proximity to Traralgon was identified as being class 2 agricultural land, as can be seen on the excerpt from the mapping shown below.

On the plan the areas identified in yellow are Class 3 agricultural land which has limited versatility but is very good dairying and sometimes suitable for orchards and broadacre cropping and the green areas are Class 2 agricultural land which is highly versatile land with a growing season of 10-11 months. The blue areas are forested land and the grey area represents the urban areas of Traralgon.

Figure 11: agricultural land classes (excerpt)



3 community feedback

The Traralgon Growth Areas Review (TGAR) project undertook a number of targeted consultation activities during the background stages (late 2009 and early 2010) to seek feedback on matters which could and / or should influence the future growth patterns of the study area. These activities included:

- Three community workshops;
- Council officer and Councillor workshops;
- Internal briefings to Councillors and Council Executive Team;
- Written requests to key government agencies and local industry to provide a response to questions and ideas; and
- Follow up phone calls and meetings with respondents.

It is important to note that these consultation events documented above relate only to the background stage of the work and there was additional consultation undertaken during the later stages of the TGAR project. The feedback garnered from the consultation activities provided a clear understanding of the existing situation and preferred approaches to planning in Traralgon. The project team found that:

- People generally accepted the need for change in the current land use composition and planning policy in order to achieve desired liveability outcomes and cater for a growing population.
- There was a consistent understanding of the physical land use constraints that Traralgon is faced with in terms of its future expansion.
- There were a number of ideas suggested and general support for the possible long term relocation of some land uses that may be more suitable in alternative locations. Such strategies need to recognise potential concerns about the detrimental impact of any relocations on those existing activities.
- Higher density residential living was generally supported, provided the amenity of places was not detrimentally impacted upon (e.g. the existing character of Traralgon's CBD or rural character of Glengarry township).

The community's vision for the future development of Traralgon and surrounds continues to build on its strength as one of Victoria's key regional economies and its position as the commercial centre of Gippsland, with a focus on education, health and community services and facilities.

The community aspires to a liveable and sustainable community with a continued focus on healthy lifestyles, supported by high quality recreational and cultural facilities and a natural environment that is nurtured and respected.

The community has expressed its desire for a future in which people are united in a common purpose whilst respecting the diversity of their heritage and cultures. To enable the vision to become reality the community has identified the need for effective and proactive leadership at all levels, and has expressed a willingness to connect with community leaders to enrich local decision making.

4 policy context

4.1 national urban policy developments

The Commonwealth released a National Urban Policy Agenda in 2010 which link to and drive future infrastructure funding and which identified five core elements:

- Maintaining our egalitarian way of life

We have to design our cities in a way that ensures distance does not exclude people from full social and economic participation in our society.

- Beating the problem of traffic congestion

Low-density urban development is placing a heavy reliance on private vehicle use – something made worse by a corresponding under-investment in public transport.

These facts make cutting congestion not just a quality of life issue but also something of huge relevance to national productivity.

- City affordability

Affordability of our cities. Badly designed cities are pushing up the cost of living. Burdening many Australian families with inefficient assets that may decline in value.

- Housing design

The obvious “un-sustainability” of the types of housing we are constructing. Questions over the suitability of housing being constructed in catering for an ageing population. This mismatch between demographic trends and housing stock is unsustainable.

- Public health

Urban issues of poor air quality, heat stress, lack of quality green space and physical inactivity result in obesity, respiratory, mental and other public health problems.

These will be exacerbated by climate change and the growth of cities – especially car dependence and the resultant physical inactivity. There are three overall conclusions that can be drawn from this, which are:

- The price Australia’s communities pay for this poor planning is high.
- In the future (a carbon constrained world, with higher energy prices and increasing urban populations) the cost of urban short-termism will increase.
- The asset base and value of poorly-planned and unsustainable urban development will decline.

4.2 victorian urban design charter

The Victorian Government announced the Urban Design Charter in 2009. The Urban Design Charter is a commitment by the Victorian Government and other signatories to make cities and towns in Victoria more liveable through good urban design. The Charter identifies 12 key principles:

- Structure: organise places so their parts relate well to each other;
- Accessibility: provide ease, safety and choice of access for all people;
- Legibility: help people to understand how places work and to find their way around;
- Animation: stimulate activity and a sense of vitality in public places;
- Fit and function: support the intended uses of spaces while also allowing for their adaptability;
- Complementary mixed uses: integrate complementary activities to promote synergies between them;
- Sense of place: recognise and enhance the qualities that give places a valued identity;
- Consistency and variety: balance order and diversity in the interests of appreciating both;
- Continuity and change: maintain a sense of place and time by embracing change yet respecting heritage values;
- Safety: design spaces that minimise risks of personal harm and support safe behaviour;
- Sensory pleasure: create spaces that engage the senses and delight the mind; and
- Inclusiveness and interaction: create places where all people are free to encounter each other as equals.

4.3 regional strategic planning initiatives

The Victorian Government (and specifically Regional Development Victoria) is developing a long-term, state-wide blueprint for the future of liveable, productive and sustainable communities in provincial Victoria. This plan will support the continued prosperity of provincial Victoria in a time of rapid growth and complex change. For the Gippsland region a leadership group comprising the six local governments and the Gippsland Regional Management Forum has been formed which will guide development of an integrated regional plan. Key issues, influences and actions that have been identified for the Gippsland region include:

- Minerals, resources, and energy sectors (due to the presence of coal, oil and gas) underpin the regional economy. This is supported by significant dairy and tourism sectors and growing lifestyle destinations.
- Adverse climate change impacts are anticipated including opportunities for land suitable for temperate intensive agriculture.
- The Carbon Pollution Reduction Scheme (CPRS) presents major challenges to the traditional strengths of the region but also opportunities for potential investment in new energy technologies.
- Competing land use pressures create an opportunity to develop a long term growth strategy that is founded on economic and social forward planning.

- Connectivity in the region for high speed optical fibre broadband and public transport improvements are key initiatives to pursue (particularly in relation to servicing ageing populations in small towns).
- Potential to enhance nature based tourism opportunities through infrastructure investment and appropriate planning structures.

Furthermore, the State Government is also currently exhibiting the draft *Gippsland Regional Growth Plan* which clearly identifies the role of Traralgon as the main growth centre within Latrobe City and the role of Latrobe City within the broader context as the Regional City of Gippsland. It identifies some significant growth opportunities for the whole region associated with the sustained development of Traralgon with the networked city.

4.4 latrobe city council policy

4.4.1 adopted council strategies

The Latrobe City Council has undertaken a number of comprehensive strategic assessments that inform forward planning for urban and rural land use and development in Latrobe and directly inform the Traralgon Growth Areas Review. The key adopted strategies that directly inform this review are:

- Residential and Rural Residential Land Assessment (2009)
- Latrobe Structure Plans Report (2007)
- Small Town Structure Plan – Boolarra, Glengarry and Tyers (2009)
- Traralgon Bypass Supplementary Inquiry (2007) and Latrobe City Response (2008)
- Traralgon Inner South Precinct (2011)
- Traralgon Station Precinct (2010)
- Approved Traralgon Development Plans (2012/2013)
- Open Space Strategy (2013)
- Latrobe Planning Scheme.

4.4.2 municipal strategic statement (mss) and local planning policy

Council's current strategy and vision is incorporated in the Municipal Strategic Statement (MSS) under the Municipal Vision (amended January 2010).

Clause 21.01 Municipal Profile

The population of Latrobe City is the third largest municipality outside of the Melbourne metropolitan and Geelong areas and is the regional centre for Gippsland. The municipality does not have a single dominant urban settlement, rather four main urban settlements comprising of Moe, Morwell and Traralgon, and Churchill in which 75% of the population live. The three larger settlements are in a linear form along the transport corridors formed by the Princes Freeway and the Melbourne railway line. This contributes to the networked city concept connecting Moe-Morwell, Traralgon-Churchill, Morwell-Churchill, and Morwell-Traralgon providing the efficient movement of people and goods.

The region is characterised by the Strzelecki Ranges to the south, with the catchments of Traralgon Creek, Bennett's Creek and the Morwell River which drain to the Latrobe River. The Latrobe River flows from west to east within the Latrobe valley, bordered by the Highlands to the north.

Latrobe has one of Victoria's strongest regional economies, contributing 3% of Australia's Gross Domestic Product. The main industries are in electricity, gas and water (26%), and manufacturing (18%, largely in coal and timber). Latrobe produces around 85% of Victoria's base load electricity.

The municipality is well served by road infrastructure due to its location to the Princes Highway, which provides excellent access to Melbourne to the west, and to East Gippsland and New South Wales to the east. The region is well served by the Regional Fast Rail service between Latrobe Valley and Melbourne, and new and expanded infrastructure including the Latrobe Regional Airport, the Gippsland Water Factory as well as various medical and educational services and facilities.

Structure Plans

Structure plans for Churchill, Moe/Newborough, Morwell and Traralgon were undertaken as part of the Main Town Structure Plans and were gazetted in the Planning Scheme in early 2010 to provide for residential and industrial land uses over the next 30 years. The *Traralgon Structure Plan* strategised for the redevelopment and relocation of ageing industrial sites, identifying new areas for residential development, and improving visual amenity and walkability.

Latrobe City Council adopted small town structure plans in 2009, including for the townships of Glengarry, Tyers and Boolarra, which have subsequently been included in the Latrobe Planning Scheme. These structure plans considered the need to provide clear direction and ensure land supply for land use and development opportunities, and to facilitate diversity in housing types and allotment sizes.

4.4.3 the latrobe vision

Latrobe City Council recently released the Council Plan for the period 2013-2017. This identified the overall direction for the Council, including the following 'mission':

"To provide the best possible facilities, services, advocacy and leadership for Latrobe City, one of Victoria's four major regional cities."

It also identifies a number of key values, as follows:

- Providing affordable people focused community services
- Planning strategically and acting responsibly, in the best interests of the whole community
- Accountability, transparency and honesty
- Listening to and working with the community

- Respect, fairness and equity
- Open to and embracing new opportunities

It is focussed around five key themes.

Job creation & economic sustainability

- Actively pursue long term economic prosperity for Latrobe City, one of Victoria's four major regional cities
- Actively pursue further diversification of business and industry in the municipality
- Actively pursue and support long term job security and the creation of new employment opportunities in Latrobe City

Appropriate, affordable & sustainable facilities, services & recreation

- To promote and support a healthy, active and connected community
- To provide facilities and services that are accessible and meet the needs of our diverse community
- To enhance the visual attractiveness and liveability of Latrobe City

Efficient, effective & accountable governance

- To achieve the highest standards of financial probity and meet all statutory obligations
- To provide open, transparent and accountable governance
- Work to minimise rate increases for our community
- Effectively manage Council debt to minimise long term cost

Advocacy for & consultation with our community

- Strengthen the profile of Latrobe City as one of Victoria's four major regional cities
- Work in partnerships with all levels of governments to ensure Latrobe City is well supported, resourced and recognised as one of Victoria's four major regional cities
- To advocate for and support cooperative relationships between business, industry and the community
- To ensure effective two-way communication and consultation processes with the community

Planning for the future

- To provide a well planned, connected and liveable community
- To provide clear and concise policies and directions in all aspects of planning
- Advocate for planning changes at the state level to reflect regional needs and aspirations
- To reduce the time taken to process land use and development planning applications

4.4.4 other plans

The structure plans for the main towns and also for Boolarra, Glengarry and Tyers were incorporated into the planning scheme in 2010.

Local structure plans will be prepared for Toongabbie, Traralgon South, Yallourn North, and Yinnar in the coming years. They will guide future land use decisions in these settlements. Commercial and community facilities and services for the townships and surrounding hinterlands should continue to be centralised to provide a focus for each town centre. This development pattern, and the social community it engenders, are qualities to be pursued and reinforced.

In addition, a number of Development Plans have been approved for recently rezoned areas around the periphery of Traralgon's urban areas. The most significant of these is the Traralgon North Development Plan which addresses land north of Marshall Road and identifies the land being used for conventional density on slightly larger lots (11 dwellings / ha), with some areas for public open space and community facilities provided. A potential supermarket site is identified on the Traralgon-Maffra Road

4.4.5 zoning and overlays

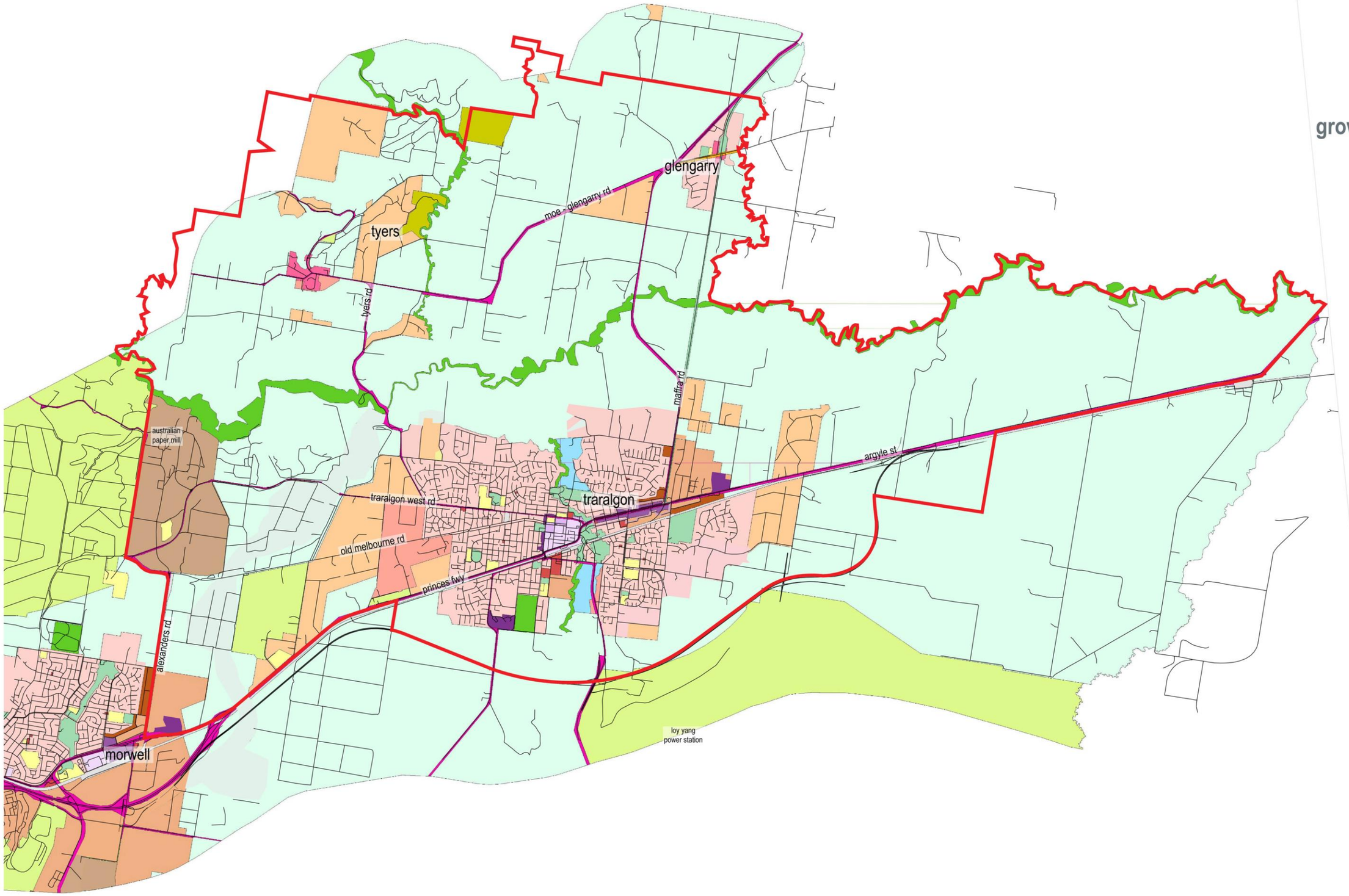
The existing zoning of the study area can be seen on the figure below. Of note is the following:

- The majority of the study area is zoned for Farming;
- Traralgon itself is dominated by Residential 1 zoning, with large areas of Low Density Residential and Rural Living zoned land on the urban fringe;
- Large areas of Special Use Zone are located to the south and west of Traralgon, affecting the Loy Yang Power station and the Latrobe Regional Airport;
- Additional areas of Rural Living Zone are located to the north of the study area;
- Tyers and the centre of Glengarry are zoned Township Zone; and
- A large area of Industrial 2 zoned land to the west indicates the location of the Maryvale Paper Mill.

There are a number of overlays which also affect the study area. These can be divided into a number of categories which are outlined below and shown on the following pages:

- Environmental (relating to flooding, fire risk etc) (Figure 13)
- Built form (heritage, design and development) ((Figure 14)
- Strategic (public acquisition, state resources etc) (Figure 15)

Of note is the large amount of planning overlays which cover areas beyond the existing urban area of Traralgon. Many of these identify constraints to development and are discussed further later in the report.



hansen

traralgon growth areas framework

existing zoning

legend

- study area
- township zone
- residential 1 zone
- low density residential zone
- rural living zone
- industrial 1 zone
- industrial 2 zone
- industrial 3 zone
- business 1 zone / commercial 1 zone
- business 4 zone / commercial 2 zone
- business 5 zone / commercial 1 zone
- public use zone
- road zone - category one
- special use zone
- public park & recreation zone
- public conservation & resource zone
- farming zone
- urban flood zone

Project Ref: 11.101
Dwg No.: DWG-016
Scale: 1:30000 @ A1
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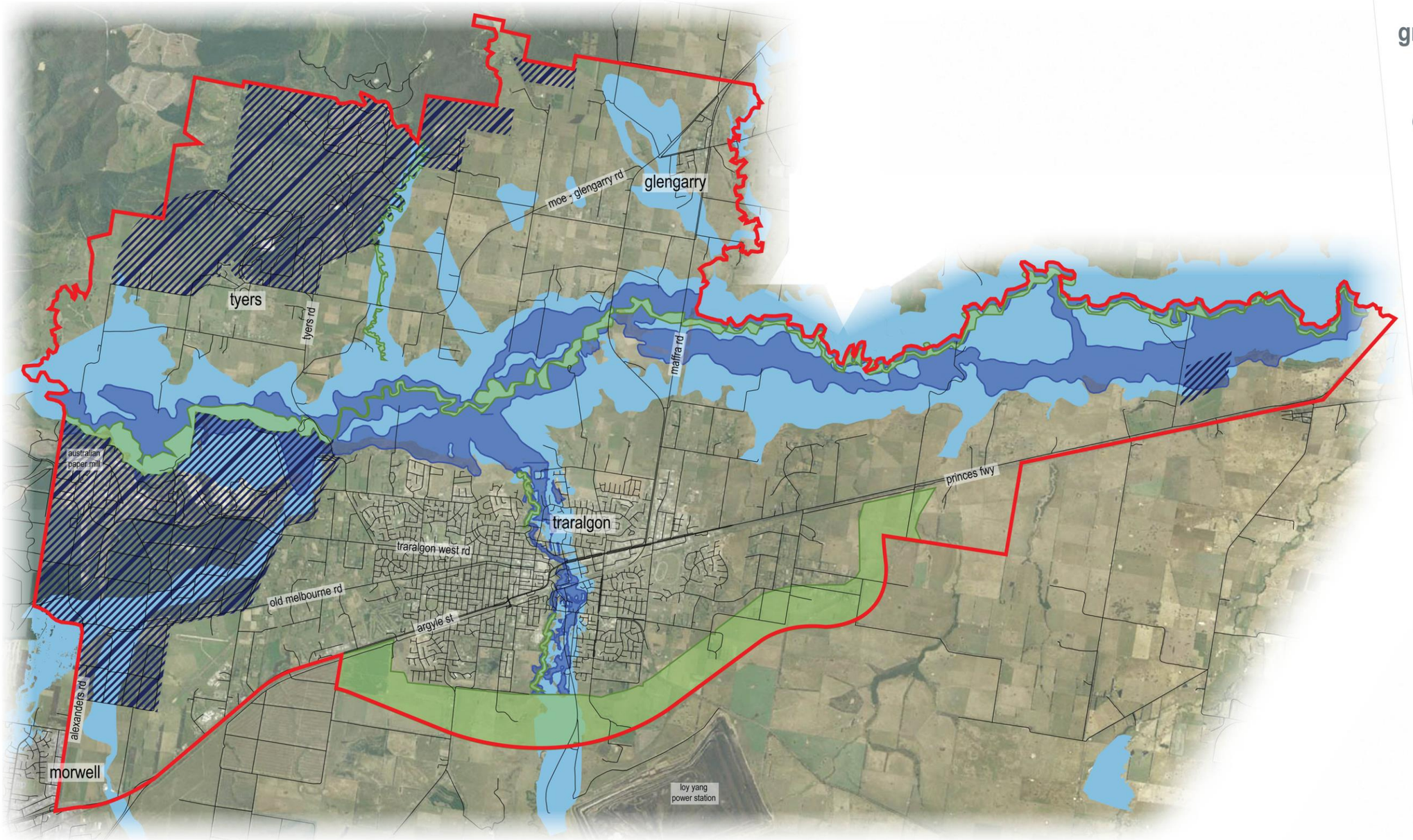
Figure 12: existing zoning



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traralgon growth area framework

existing environmental overlays

legend

- study area
- ESO (environmental significance overlay)
- FO (floodway overlay)
- LSIO (land subject to inundation overlay)
- WMO / BMO (wildfire management overlay / bushfire management overlay)

Project Ref: 11.101
Dwg No.: DWG-025
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Figure 13: existing environmental overlays

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traralgon growth area framework

existing development overlays

legend

- study area
- DPO (development plan overlay)
- HO (heritage overlay)
- DDO (design & development overlay)

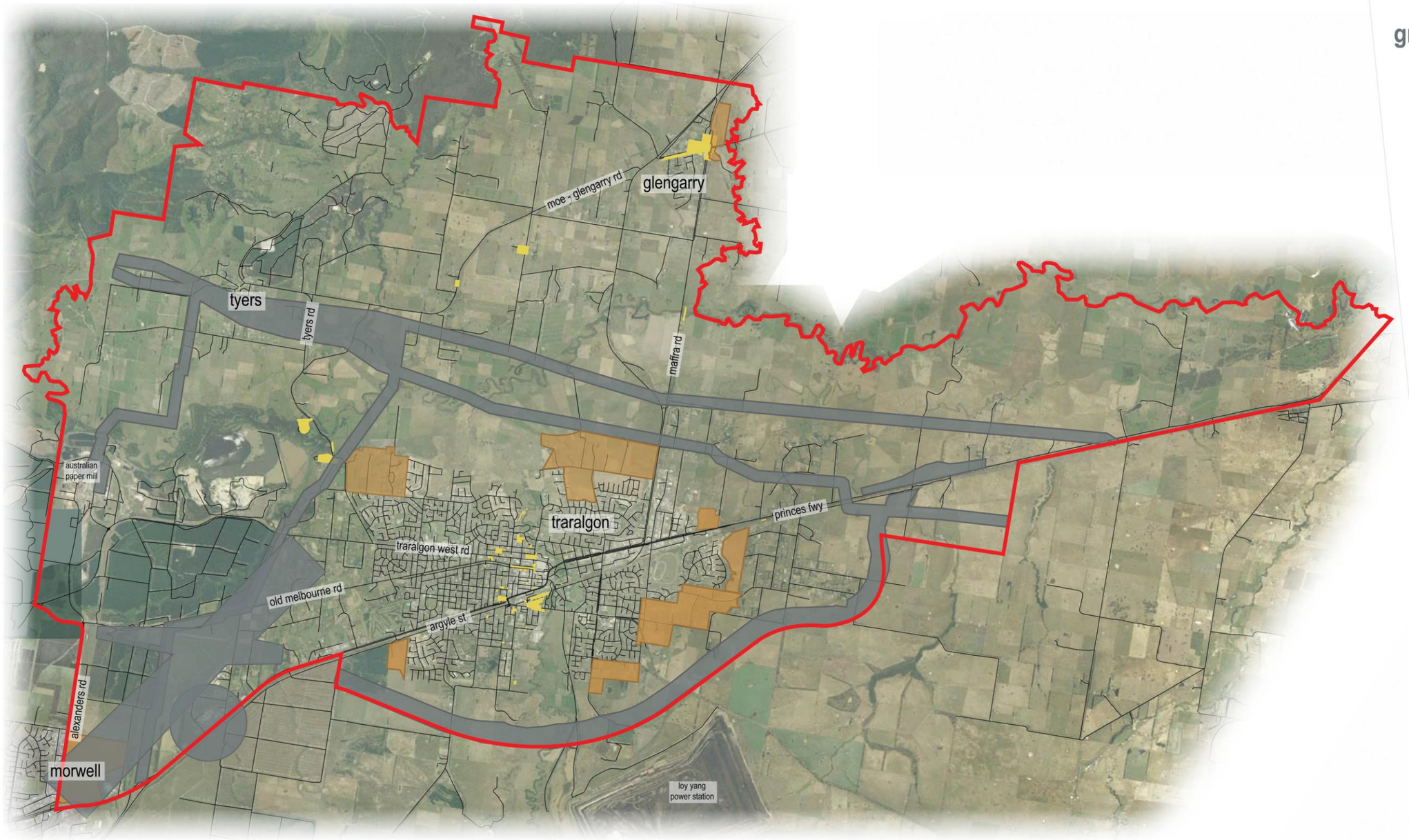

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Figure 14: existing development overlays

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traralgon growth area framework

existing infrastructure overlays

legend

- study area
- PAO (public acquisition overlay)
- EAO (environmental audit overlay)
- SRO (state resource overlay)
- AEO (airport environs overlay)

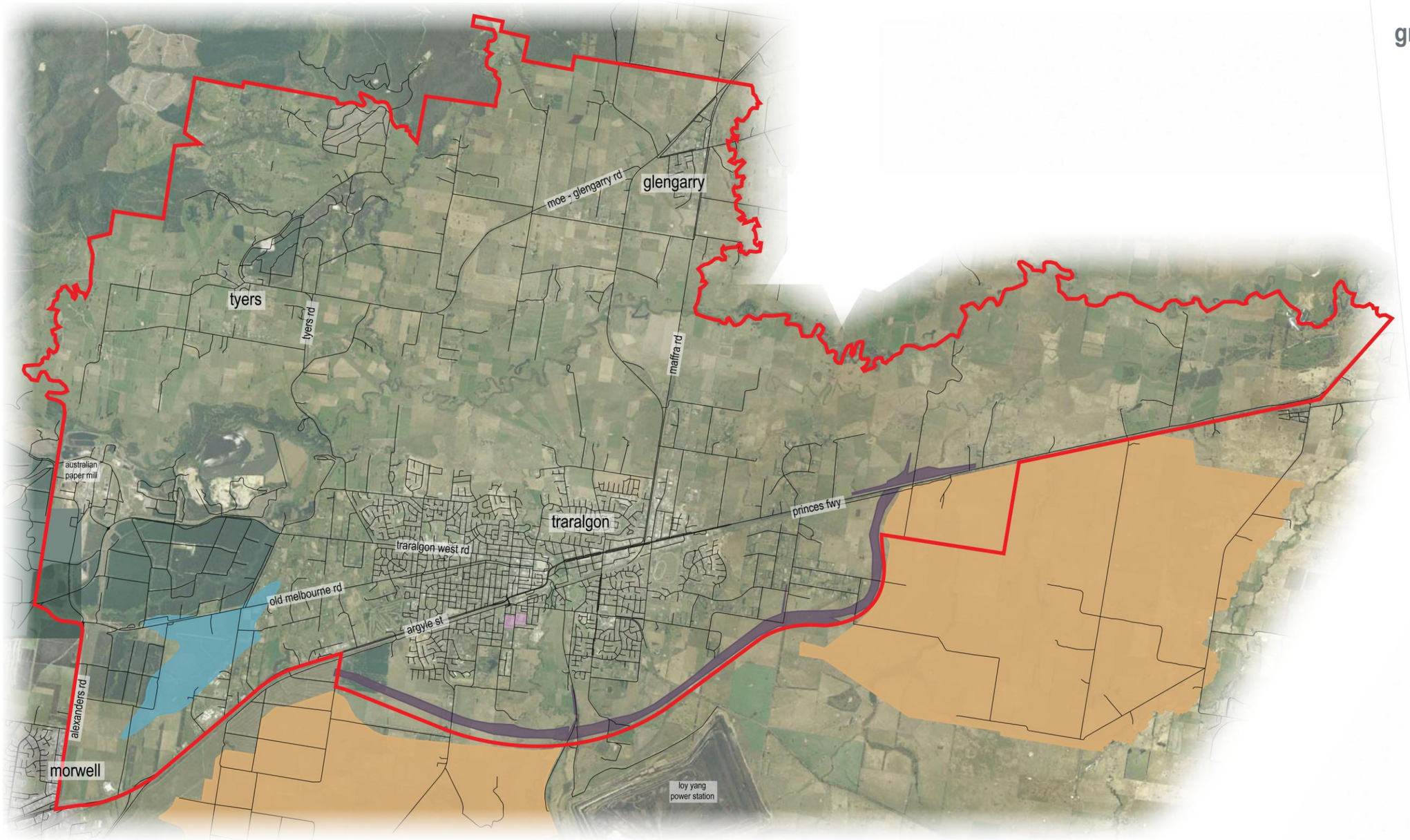

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Figure 15: existing infrastructure overlays

5 demographic trends

5.1 population forecasts

A number of different population growth forecasts have been prepared for Latrobe City and Traralgon over the past few years. Each of these is based on slightly different assumptions, geographical areas and timeframes. To understand the population outlook for Traralgon it is necessary to understand the differences between each of these forecasts and to extrapolate them to a common timeframe. This has been done by continuing the annual growth rates inherent in each forecast from their start to end date, out to 2051. The year 2051 is adopted as the planning horizon for this project, given the need to examine the availability of land around Traralgon for future urban expansion in the long term. The following provides a summary of population growth forecasts which have been prepared for Latrobe City and Traralgon:

victoria in future 2012

- Victoria in Future (VIF) provides population forecasts to 2031, for both the municipality of Latrobe and the Traralgon SLA, which includes rural areas and smaller settlements to the north and south of Traralgon.
- Based on estimated resident population.

forecast id

- Provides forecasts to 2031.
- Relates to what appears to be the Statistical Local Area (SLA) of Traralgon.
- Based on estimated residential population.

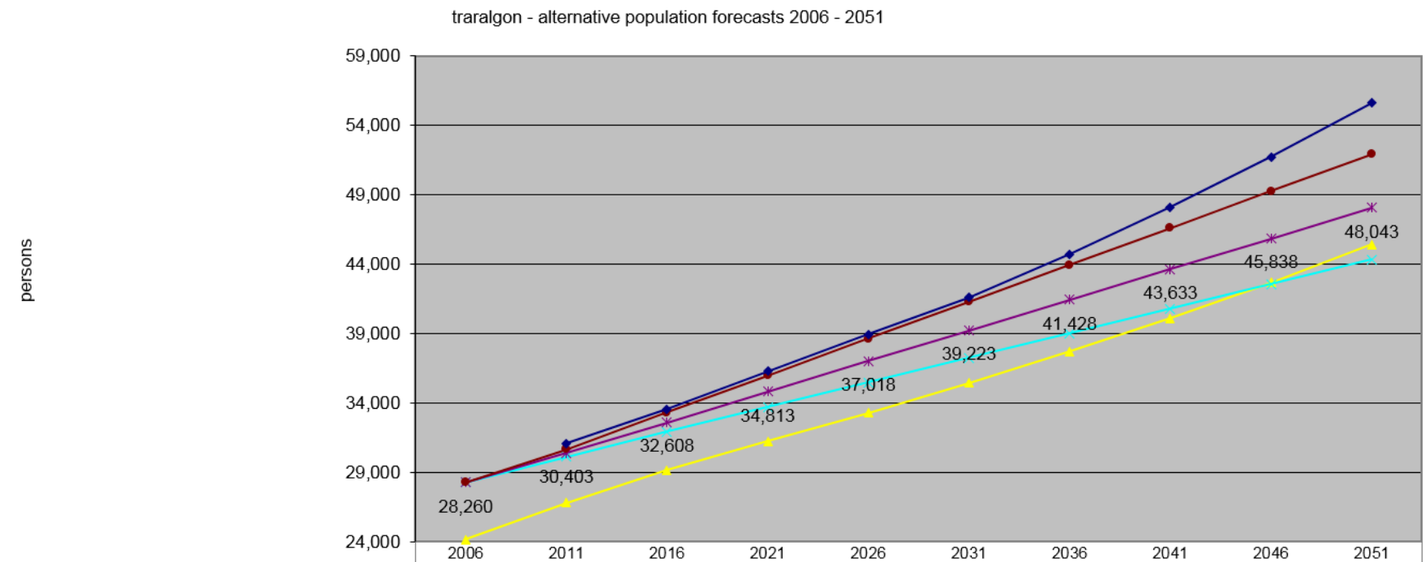
essential economics

- Provides forecasts as part of the Residential and Rural Residential Land Assessment Project undertaken for Council in 2009.
- Figures relate to the Traralgon SLA.
- Provides forecasts to 2023.
- Presents three scenarios: high, medium and low growth.

parsons brinckerhoff

- Adopted the high growth scenario from the Essential Economics report, and extrapolated to 2051.

Figure 16: traralgon - alternative population forecasts to 2051



	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
id forecast HP based on annual % growth Traralgon	24,143	26,813	29,157	31,255	33,291	35,425	37,695	40,110	42,681	45,416
essential economics - low Traralgon	28,260	30,145	31,920	33,695	35,470	37,245	39,020	40,795	42,570	44,345
essential economics - medium Traralgon	28,260	30,403	32,608	34,813	37,018	39,223	41,428	43,633	45,838	48,043
essential economics - high Traralgon	28,260	30,673	33,328	35,983	38,638	41,293	43,948	46,603	49,258	51,913
victoria in future 2012		31,105	33,570	36,292	38,953	41,595	44,730	48,101	51,725	55,623

council adopted population forecast for traralgon – 2011 to 2051					
scenario	2011 (persons)	2051 (persons)	additional (people)	ave. annual change (persons)	ave. annual % change
Low	30,145	44,345	14,200	355	0.97%
medium	30,403	48,043	17,640	441	1.15%
High	30,673	51,913	21,240	531	1.32%

Table 4: council adopted population forecast for traralgon – 2011 to 2051

Figure 16 (on the previous page) illustrates the difference between each forecast once they have been adjusted to extend to 2051. The following observations can be made:

- The forecast id, and the Essential Economics High Growth forecasts, assume a similar rate of growth, but have a different starting population for 2006.
- The Victoria in Future 2012 forecast has an average annual growth rate (1.46%), which is the highest of all growth rates. The VIF2012 forecasts are based on 2011 census and are based on a 2011 population of 31,105 which approximates the 2011 population of the Essential Economics forecast, even though they were prepared a number of years ago.

For the purposes of this report the Essential Economics forecasts are proposed to be used. The growth rate for the high growth forecast is consistent with the forecast ID forecast. The low growth scenario provides a moderating forecast, approximating the VIF 2012 forecast.

As a consequence the additional population that might be expected in Traralgon between 2011 and 2051 is shown in the Table 4. It should be noted that the additional population increase between 2011 and 2051, if based on VIF 2012 forecast the estimated population in 2051 would be some 55,623 people, around 3,700 persons more than the Essential Economics high growth scenario. +

It is noted that recent population estimates identified in the draft Regional Growth Plan identifies that beyond existing anticipated growth in Traralgon:

"Significant new investment in the region, particularly efforts to develop clean and renewable energy, and to foster supporting research and advanced manufacturing sectors could help attract a higher population of up to 465,000 by 2041. This upper range figure envisages that Latrobe City, as the regional city, comprising Moe, Morwell, Traralgon and Churchill, will experience significant population and economic growth." This higher figure is almost 80,000 people higher than the baseline projection.

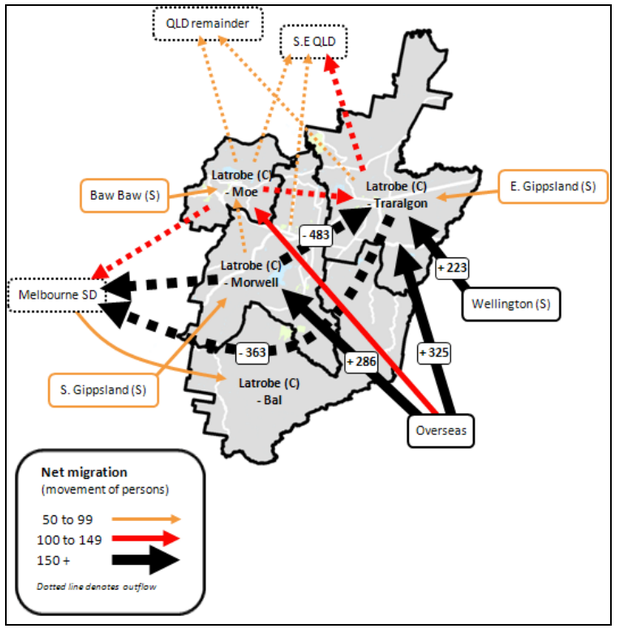


Figure 17: latrobe city migration

5.2 household composition

An understanding of the existing types of housing stock and the impact that this might have on the future land requirements to accommodate the population must also be considered. The predominant housing stock in Traralgon is a separate house (88.3%). In the past few years the greatest percentage of residential development has been of separate homes on large blocks on the periphery of the existing urban area of Traralgon.

There were only 4 additional flats and apartments built (a 0.6% decrease) between 2006 and 2011 whilst there were 828 additional separate houses (which represent an increase of 1.6%) in the same period of time. In comparison, the number of semi-detached houses and townhouses reduced by 144 from 2006 to 2011 (a decrease of 1.5%). This is despite the housing demand for flats and smaller dwellings, which is anticipated to continue to increase in line with the projected population growth of Traralgon.

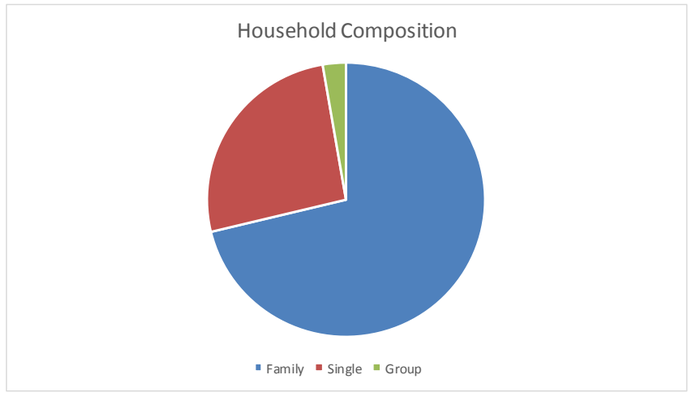


Figure 18: household composition % 2011, Traralgon SLA
Source: ABS census data 2011

5.3 household growth rates

The expected household growth rate is greater than the population growth rates. This is due to an increasing population, yet the number of people residing in households is expected to decrease resulting in more dwellings required in Traralgon.

Traralgon's average household size has remained stable at 2.5 persons in 2006 and 2011, reflecting National trends. However, the number of single person households is growing, with an increase from 24% in 2006 to 26.1% in 2011. The number of single person households is a rising trend that is attributed to other influencing trends such as increasing number of

divorces, an ageing population and widowers and also factors such as a more upwardly mobile younger demographic.

The population increase experienced in Traralgon over the past decade has resulted in Traralgon – Traralgon East providing the majority of all dwelling gain. In 2011 Traralgon had an annual development rate of 11,540 dwellings, which was the highest rate of development in Latrobe City. Traralgon is forecast to have the greatest increase in the number of dwellings and development in Latrobe City, with 39% expected for 2036. Traralgon has a high demand for residential development and has been the most popular location in the past decade largely because it is the regional and business centre of the Latrobe Valley, with greater choice in employment, education, health and housing options. A significant amount of residential land has been released to the market on the outskirts of Traralgon. Traralgon is not considered to be as impacted upon by perceived negative issues around local image and socioeconomic disadvantage and therefore has not been affected to the same extent as other towns in Latrobe City.

6 constraints

There are a number of constraints which influence the type and nature of development that Traralgon could accommodate.

The Victorian Government selected the northern most alignment option for the Traralgon bypass. This has essentially driven the need to undertake the Traralgon Growth Area Review, as it impacts on land originally flagged as potential urban growth within the Traralgon-Morwell Corridor Concept Plan (2007) and the Traralgon Structure Plan (2007). Consequentially, substantial replanning of the urban and rural strategies is required to identify areas where urban growth is most appropriate. In this regard, it would be necessary for Council and the community to reconsider the most appropriate land-use mix for these areas.

Many of the constraints are indicated in the Latrobe Planning Scheme. They are often indicated by Overlay controls and serve to establish an area that addresses distinguishing circumstances or landscape features, and is superimposed over existing municipal zoning. Overlay controls do not replace existing municipal zoning, but rather build upon base zoning by establishing additional provisions and standards. These are intended to provide a means to address issues of special significance (e.g. flooding, coal resources, gas pipelines, etc.) that the underlying base zoning may not otherwise take into consideration.

The constraints outlined in this section are key considerations when identifying and developing key areas to accommodate Traralgon's growth in the future.

6.1 physical

6.1.1 traralgon bypass

The selection of the Traralgon bypass route partially affects land already identified as urban release / investigation area south-west of Traralgon CBD. Council estimates that approximately 500 hectares of land that could have potentially been developed for residential use has now been lost. This could have produced an estimate yield of approximately 600 new dwellings based on an 800sqm average lot size.

Where practicable, land-use options adjacent to the new bypass need to be developed so that they are compatible. Construction of the new bypass would introduce traffic noise impacts and visual impacts into a rural / urban fringe environment whilst at the same time reducing noise and traffic impacts within the CBD area of Traralgon. The bypass will also provide improved accessibility by car.

The bypass will form a clear barrier to the extent of additional development, particularly residential development to the south of Traralgon. There is some potential however, that some additional uses that are not sensitive, such as industrial uses, may be possible within this area. However, if the alignment of the proposed bypass should change in the future, there would be a corresponding change to the suitable land uses within that area.

6.1.2 coal resources

There is an estimated potential economically extractable resource of 33 billion tonnes in the Latrobe Valley (Gippsland Regional Plan 2010).The land around Traralgon contains large reserves of brown coal which contribute to the Latrobe Valley supply, which is amongst the biggest reserves of brown coal in the world. These are mainly to the south of the Traralgon urban area in the land and can be identified by the State Resource Overlay which is identified in the earlier figure. The planning scheme has two overlays which seek to protect these assets, including the State Resources Overlay (SRO) and an Environmental Significance Overlay (ESO). The objective of the ESO is:

- To ensure that development in the Gippsland Coalfields Policy Area provides mutual protection of urban amenity and coal resource development and the continued social and economic productive use of land.
- To provide for development which is compatible within a buffer area including reservations and for services ancillary to a Brown Coal Open Cut outside the buffer area.

This means that a large area to the south of Traralgon is unavailable for development.

Further to this, there are other potential areas where coal resources may be located as identified in a 2005 GHD report, Latrobe Valley 2100 Coal Resources Project shown below. Areas rated 1 and 2 are anticipated to be developed at some point in the future.

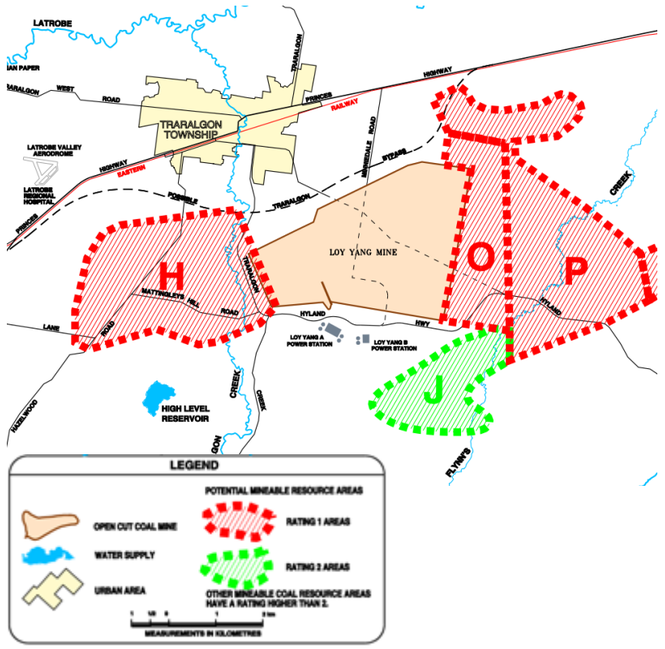


Figure 19: map of highly rated coal areas

Source: GHD, 2005, Latrobe Valley 2100

There has been some discussion recently about potential changes to the wording of the ESO to allow no coal related uses within the 'buffer' that was established for the development of the Traralgon Bypass. The bypass project has necessitated the application of both a Public Acquisition Overlay but also a Design and Development Overlay to ensure that sensitive uses developed proximate to the bypass take appropriate remedial actions (as indicated by DDO3). Given the separation that is likely to occur as a result of the bypass, it is considered that some additional flexibility in the uses allowed in the ESO to the north of the bypass alignment may be possible in the future.

The future of coal resources within this area remain the subject of further discussion and investigation by Clean Coal Victoria and it is understood a new Coal Resource Strategy will be released in the near future. Any change to the constraints affecting Traralgon will need to be further considered at that point.

6.1.3 flooding

There are a number of defined water courses within the study area, notably the Latrobe River, Traralgon Creek and the Rintoul Creek. There are also several unnamed watercourses identified within this area.

The main urban area of Traralgon is greatly affected by areas subject to flooding, mainly in the north and through the centre of Traralgon. These areas significantly restrict Traralgon's urban growth. The susceptibility of land to flooding and disposal of surface water are a material planning consideration in order to minimise flood risk, damage and hazards. Access to properties during flood events is also a very significant issue. It may be possible to elevate new and existing dwellings in flood prone areas to levels that will not be at high risk, but if access is hazardous during flood events it creates a very real danger to the life, health and safety of residents, their families and emergency services. The potential of adverse impacts associated with development is therefore an important constraint on how land might be used, developed or managed. The extent of existing land affected by flooding is shown in Figure 13.

In regards to Glengarry, it is noted that there are areas within the township that are affected by potential flooding events. These are primarily in relation to areas adjacent to Eaglehawk Creek and low lying areas around Rifle Range Road. There are limited areas affected by potential flooding in Tyers.

The accuracy of VicMap flood planning maps has been assessed as being low to medium by the Department of Natural Resources and Environment (DNRE). Further investigation and confirmation of the extent of flood boundaries within Flood Planning Maps is required to provide confidence in use for planning purposes.

Improved flood mapping data was provided to Latrobe Council in 2000 through the Flood Data Transfer Project. A Planning Scheme amendment (Amendment C9) was introduced to ensure this new data is reflected in the Latrobe Planning Scheme.

Existing land subject to flooding is identified through the application of either a Floodway (rural or urban) Overlay or a Land Subject to Inundation Overlay. Generally, greater flexibility for development is given to land identified as subject to inundation (with most development prohibited under the Floodway Overlay).

6.1.4 gas pipeline

Another potential constraint to the growth of Traralgon's urban areas is the major gas and oil pipelines that wrap around Traralgon, predominately to the north. Approximately 130 kilometres of high pressure pipelines that traverse Latrobe City within the Traralgon Growth Areas Review study area. This affects most of the Tyers urban area, has limited impacts on the Traralgon urban area and has little effect on Glengarry. A Design and Development Overlay – Schedule 1 (DDO1) in the Latrobe Planning Scheme contains provisions that control levels of development within these areas to ensure there is an adequate buffer between people and the high pressure pipelines.

The objective of DDO:

- To ensure that all buildings and works and in particular buildings designed to accommodate people are sufficiently separated from high pressure pipelines to avoid a safety hazard.

The DDO1 prescribes a buffer width of 200 metres to ensure that all buildings and works; in particular buildings designed to accommodate people, are sufficiently separated from high pressure pipelines to avoid potential safety hazards. It is important to note that the DDO1 extends beyond the extent of the established easement for the gas pipeline which ranges between 20 metres and 25 metres in places. The 200m DDO potentially provides further unnecessary restrictions to development in these areas.

It is also noted that Latrobe City Council has consulted with the Department of Primary Industries (DPI) requesting the deletion of the DDO1 from the Latrobe Planning Scheme. The reasons they state for this deletion include:

- Of the Municipalities which high pressure pipelines pass through, Latrobe's is the only planning scheme that contains the DDO1 and associated buffer width. In other Municipalities, easements of between 20-25 metres provide for separation to avoid potential safety hazards.
- The high pressure pipelines within Latrobe City are also covered by easements ranging from 20-25 metres.
- In addition to the DDO1, the high pressure pipelines are covered by Clause 66 of the Latrobe Planning Scheme. Clause 66 of the Latrobe Planning Scheme requires a planning permit for the subdivision of land crossed by gas transmission pipelines or gas transmission pipeline easements. In addition, Section 310 of the Building Regulations requires a report and consent from the relevant service authority prior to any approval being granted to build over the easement.

- Planning Permit referrals triggered by the provision of the DDO1 will create unnecessary delays which will prevent Council from the prompt processing of planning permit applications that have no impact on the high pressure pipeline.

It is important to note that the intention of DDO1 is not to sterilise development but to rather monitor development in the locality of the gas pipeline. The DDO1 triggers the requirement for a planning permit for essentially all buildings and works and subdivision applications.

A DPI response to this inquiry by the Council established the following:

- The buffers established in other areas are considered to be insufficient and are being reviewed.
- DDO1 does not affect the ability of the land to be subdivided and developed provided that appropriate buffers and safety measures are in place.
- The DDO will not be supported to be removed or modified, however there may be some flexibility established to reduce the amount of referrals necessary and to better facilitate development in these areas.
- There is however, ongoing discussion regarding the potential for a Memorandum of Understanding to outline potential streamlining of assessment of proposals within the DDO.

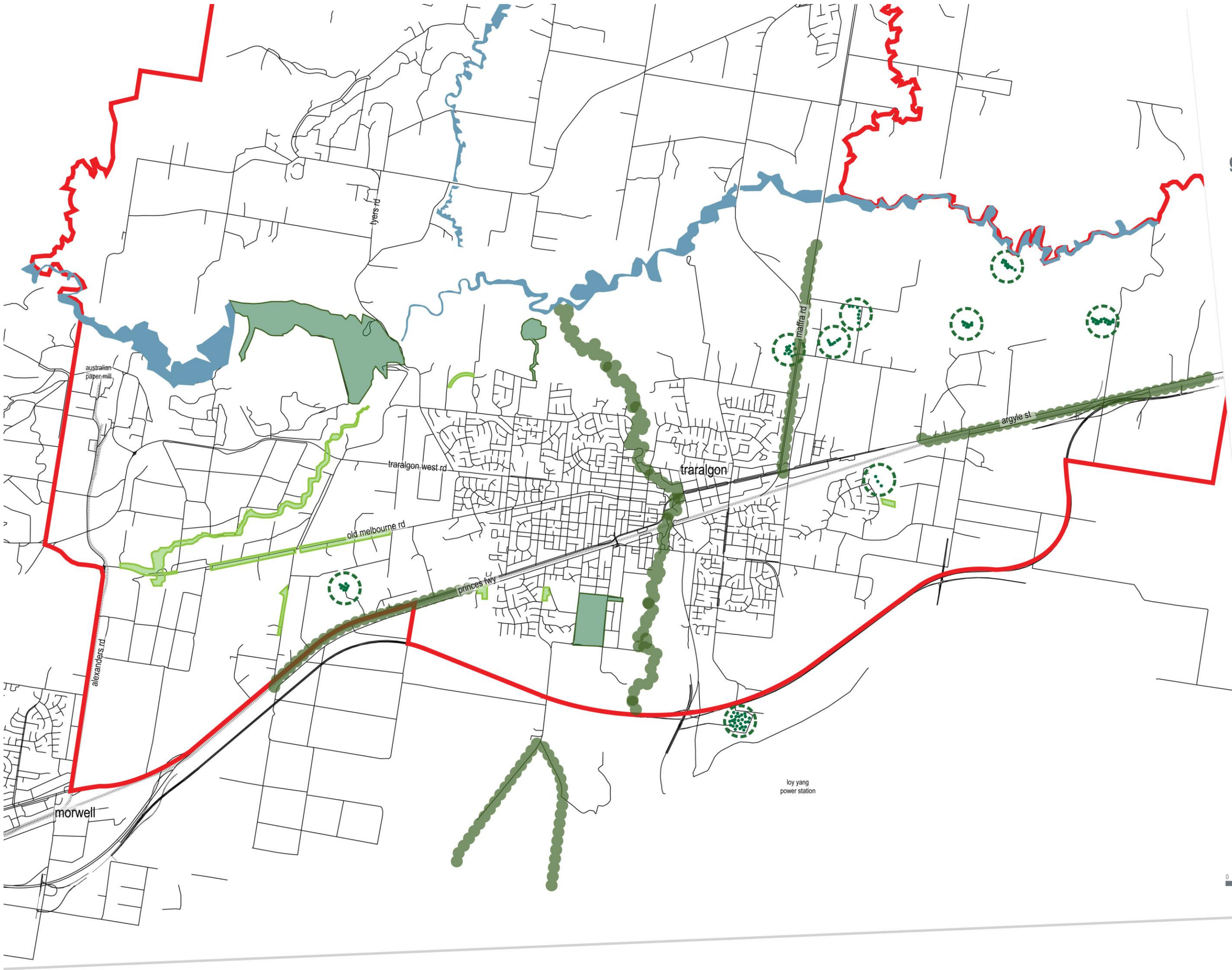
6.1.5 biodiversity values

The presence of EVCs (native vegetation) important biodiversity assets within and adjacent to Traralgon provides both a constraint and opportunity for development. Further discussion regarding existing biodiversity assets is provided in 2.6 biodiversity values section.

The native vegetation requires consideration in terms of how it can be avoided in accordance with *Victoria's Native Vegetation – A Framework for Action.* Where avoidance of this native vegetation is not possible, then consideration of minimising impact on native vegetation and, lastly, offsetting the impacts are required. Where native vegetation is proposed to be removed this generally requires a planning permit under Clause 52.17 under the Latrobe Planning Scheme.

Biodiversity mapping indicates that there are a number of important flora and fauna; bushland reserves; waterways and wetlands; and linear railway and road corridor assets in the study area (see Figure 20 following).

Biodiversity assets within and surrounding Traralgon may provide an opportunity to explore how these assets can be used for green wedge zones, urban space, rehabilitation areas and future offset sites. Assessments of the quality and extent of the biodiversity assets should be undertaken to allow for prioritisation of resources to protect and enhance areas.



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traralgon growth area framework

significant biodiversity assets within & around traralgon

legend

- study area
- linear vegetation corridors
- offset areas
- biodiversity asset areas
- remanent vegetation
- latrobe river corridor

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Figure 20: biodiversity assets

6.1.6 cultural heritage

Areas of cultural heritage sensitivity are generally located within 200m of waterways and within 50m of a registered cultural heritage site. The Traralgon Growth Areas Review study area contains numerous areas of cultural heritage sensitivity associated within waterways, including the Latrobe River and Traralgon Creek. In addition there are a number of registered cultural heritage locations both within these waterway zones and throughout the area that contain aboriginal artefact scatters and scarred trees (refer to Figure 11 for locations of cultural heritage sensitivity).

While the identification of an area as culturally sensitive does not preclude development, it does mean that any areas of cultural heritage sensitivity that do not have significant disturbed subsoils require a Cultural Heritage Management Plan (CHMP) for specified works under the *Aboriginal Heritage Act 2006*. Depending on the findings of this plan, development may be constrained.

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traralgon growth area framework

cultural heritage significance

legend

cultural heritage significance

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Figure 21: cultural heritage

6.2 land use

With respect to land use constraints, the objective is to locate potential new growth within areas of planned growth while at the same time minimising direct impacts to established communities and adjacent land use zonings within the study area.

6.2.1 existing residential zoned land

A significant area within the study area on the north side of Princes Highway, west of the Traralgon town centre is zoned as Low Density Residential Zone (LDRZ) and Rural Living Zone (RLZ). Whilst this type of zoned land adds to the different types of housing stock available in Traralgon, it can be seen as an impediment to the intensification of residential development in the study area due to difficulty in reorganising developed areas for more intensive development. Retrofitting infrastructure in such areas can prove difficult and community expectations need to be consistent to amend the planning framework across significant parts of the area.

The Residential and Rural Residential Land Supply Assessment (2009) (undertaken by Essential Economics) highlighted the potential land use constraints associated with residential supply relative to demand within the Traralgon precinct. Based on estimates compiled in April 2008, low, medium and high forecast growth scenarios to 2023 were projected to outline the adequacy of residential land; Residential 1 Zone (R1Z) and Low Density Residential Zone, and rural land; Rural Living Zone supply available for development (see Table opposite).

Additional work will need to be undertaken as part of the Growth Area Framework to determine the land requirements on the basis of existing scenarios and trends.

Zone	Low Growth Scenario	Medium Growth Scenario	High Growth Scenario
Supply of Lots Available for Development (lots that can be developed in near future)			
R1Z land	3.9 years	3.4 years	3.0 years
LDRZ land	15.4 years	13.3 years	11.6 years
RLZ land	8.6 years	7.4 years	6.4 years
Supply of Total Vacant Lot Potential (vacant lots that have potential to be developed)			
R1Z land	6.7 years	5.8 years	5.0 years
LDRZ land	24.4 years	21.0 years	18.3 years
RLZ land	18.0 years	15.5 years	13.5 years

Figure 22: Adequacy of residential land supply – Traralgon precinct, April 2008

Source: Essential Economics, 2009, Residential and Rural Residential Land Supply Assessment p. 57

This assessment by Essential Economics in the Residential and Rural Residential Land Supply Assessment 2009 demonstrated that there will be insufficient supply of R1Z land available to meet forecast demand over the next 10 years for low, medium and high growth scenarios. However, there is potential to expand capacity of R1Z land by 2 to 3 years. In contrast, it expected that the supply of LDRZ land available for development is relatively higher, ranging from 11 to 15 years with further potential for an increase in capacity of approximately 18 to 24 years. Available capacity for RLZ rural land is also expected to be adequate for approximately 6 to 8 years, with vacant lot potential of between 13 to 18 years.

From this basis, the 2009 report expected that there would be a shortfall in supply of approximately 1,140 R1Z lots, or 114 ha under a medium growth scenario. The shortage in supply would increase to 2,460 lots or 246 ha over a fifteen year period (2008-2023) under a medium growth scenario.

The *Traralgon Growth Areas Framework* (2013) provides an update on the available land for residential development and considers new land made available for development through Amendments C47, C56 and C58 to the Latrobe Planning Scheme.

6.2.2 existing industrial zoned land

There are three areas of industrial zoned land in the study area. Retail trade and manufacturing are the dominant industries in the regional centre and account for almost 1 in every 3 jobs. The two primary areas of industrial land with the potential for growth are to the northwest of Traralgon where there is a large area of industrially zoned land, some of which remains vacant and some of which appears to be underutilised. This area is identified as expanding to the west and north in the Traralgon Structure Plan (2007).

In addition, there is a large area of mostly vacant industrial land to the immediate east of Morwell's existing urban area which is considered as part of this study.

There are also areas within the study area, to the south of the Traralgon town centre and railway line, which are zoned industrial and offer significant challenges to future urban development within these areas. This land is presently bounded by residential land uses and abuts the Transit Cities Precinct. Currently, these areas have existing industries that have adverse amenity potential to sensitive uses, attract significant buffer distances and consequently reduce the ability for residential intensification. In particular, the Sibilco Lime Processing Plant (UALLPP) in Jeanette Street requires a 500-metre buffer and may be an impediment to the redevelopment of greenfield opportunities to the south. These areas will need to be reviewed to determine the most appropriate or optimal use for this land south of the train station in order to provide certainty for development potential in the future. If it is to be used for residential development, the land currently occupied by industry would require comprehensive rehabilitation. This matter was explored in the *Traralgon Inner South Precinct Masterplan* which was adopted by Council on the 11 July 2011.

6.2.3 existing retail zoned land

The Traralgon Activity Centre has approximately 179,000m² of land zoned for business use. Approximately 58% or 103,820m² of the Activity Centre has been developed for non-retail uses. Nonetheless the Activity Centre remains one of the largest and most important commercial centres in the Gippsland region accommodating retail, office, government, education and other community services.

The combination of retail and non-retail floorspace in Traralgon produces an activity centre in excess of 108,000sqm. This places Traralgon amongst the largest activity centres in Victoria with the likes of Geelong, Bendigo, Ballarat and Frankston.

According to the *MacroPlan Retail Strategy* (2009) Glengarry has approximately 456sqm of retail floorspace and Tyers was not included within the report. However, Tyers does have a service station and convenience store.

6.2.4 other significant land uses

Other areas within the study area that have significant existing land uses also need to be considered. The Latrobe Regional Airport and the Traralgon Regional Hospital are both located between Morwell and Traralgon, west of the Traralgon town centre.

latrobe regional airport

The Latrobe Regional Airport, located on land leased from the Crown by Latrobe City Council, was initially established in 1958 as the permanent home of the Latrobe Valley Aero Club. It is located approximately 150km east-south-east of Melbourne, between Morwell and Traralgon. It is essentially a major regional asset, with considerable investment, providing important air transport links to the broader Gippsland region, in particular the four main Gippsland towns of Moe, Morwell, Traralgon and Churchill. It also supports Australia's only aircraft manufacturing industry, air charter operations, general aviation, sport aviation, medical response facilities, tourism services and a Department of Sustainability and Environment permanent fire fighting base.

The Latrobe Regional Airport Master Plan (2009) provides for a capital expenditure program of around $1M per annum, jointly funded by Regional Development Victoria and the Latrobe Council.

Projects currently in progress include:

- Development of 19 lots for private hangarage; and
- Improvement of emergency access arrangements;

Projects completed within the last 5 years include:

- Taxiway extension to the western end of the 03/21 Runway;
- Extension of the same taxiway to provide runway access to lots in Industrial Precinct 1;
- Improvements to apron and parking areas; and
- Development of commercial lots for aviation related businesses with direct runway access.

The protection of the immediate surrounds from incompatible development is an integral component in maintaining a safe operating environment, while ensuring the amenity of future residents. This includes the intensification of higher density urban development surrounding the airport environs in the future.

In this regard, Amendment C26 to the Latrobe Planning Scheme introduced a Design and Development Overlay (DDO7 and DDO8) to implement controls to ensure that sensitive land uses and inappropriate development under the approach and take-off flight paths do not prejudice or restrict the operation of the airport.

DDO7 required a permit for a building and works which exceed 55m Australian Height Datum (AHD), (in most instances this will trigger a permit for buildings and works above 5m of the natural ground surface level). DDO8 required a permit for building and works which exceed 65m AHD, (in most instances this will trigger a permit for buildings and works above 10m from the natural ground surface level). The DDO's address the critical runway approach areas and take into account existing topography of the land.

In the long term future it is considered that an investigation should be conducted into the long term needs and opportunities of for the Latrobe Regional Airport and a feasibility study completed for its potential relocation or retention. The airport encompasses approximately 200 hectares, and comprises two runways, a number of taxiways and aprons, a terminal building, hangars and other support buildings. If the relocation were to prove feasible, it would allow urban redevelopment opportunities on the airport site and intensification in the airport environs. At an average lot size of 4000 sqm this site could accommodate approximately 500 new dwellings or at an average lot size of 2000 sqm there could be a potential for 1000 new dwellings.

latrobe regional hospital

Latrobe Regional Hospital provides a regional public health service for the whole of Gippsland. The hospital is part of Gippsland Health, and is a purpose built 257-bed, fully integrated health service. The hospital services an immediate population of nearly 70,000 in the Latrobe Valley and, in conjunction with the region's other healthcare providers, over 240,000 across Gippsland. Services at the hospital include:

- aged care
- cancer care
- elective surgery
- maternity
- mental health
- pharmacy
- rehabilitation
- acute health

The hospital also has a 'Community Residential Care Unit' that provides residential rehabilitation for people with prolonged severe mental illness and associated disability.

In addition, the hospital functions as a teaching hospital and is affiliated with the University of Ballarat School of Rural Health.

It is understood that the hospital has a number of longer term needs in terms of expansion which affect land use planning as there is a need for additional land for both the hospital itself and also the accommodation for staff and visitors. In particular, this is a concern given the wide area that the hospital services, as well as other associated uses. A masterplan has been prepared for the hospital site which outlines some of these requirements.

There are also other significant land uses, in the form of large sporting and recreation areas, such as the Traralgon Golf Course, Glenview Park and the old psychiatric hospital to the south west.

6.2.5 land fragmentation

The development of Rural Living and Low Density Residential Zoned lots in the past has created a fragmented settlement pattern. This comprises multiple owners and varied lot sizes, making it difficult to assemble and facilitate for future urban redevelopment. Land fragmentation, particularly on the urban fringe, is another key issue. Land readjustment and sometimes rezoning is often required to supply land for urban development. Sites after readjustment are often of a better size to produce a more effective density for the area, with clearly defined provisions for infrastructure and equipped with satisfactory public facilities. Therefore sites in a readjustment area are often prime areas for redevelopment. It's often easier to readjust and rezone large parcels of land with limited ownership. Retaining large lots and avoiding subdivision will provide maximum opportunity for residential development.

It is considered that sites suitable for re-adjustment are typically located in the inner precincts, along the highway frontages, and on the fringe of the urban areas. Larger lots needing to be retained are in areas generally located in the Farming Zone, in the study area, that have not been identified for rezoning and/or intensification.

6.3 local property market

When developing land for growth, it is often the land or areas that are cheapest and easiest to develop that get developed first. This is due to this land being able to provide the developer with the highest possible return on investment. Other land comes 'online' and only becomes feasible because the price people are willing to pay for residential lots increases in times of property booms, thus allowing the very high development costs to be absorbed, with little or no reduction in the developer's margin.

The balance of zoned land, identified for development, can often be generally small and fragmented and have substantial development constraints. The increased cost of development cannot be passed onto the consumer, as the price would be unacceptable in a market that provides choice. This explains why some residentially zoned land has remained undeveloped and why it will not come onto the market in, at least, the short term.

In order to fully understand the development potential of Traralgon, the influence of the market needs to be considered, in terms of determining the locations of residential land, to establish if in fact it is commercially viable to develop. There is no point designating new land for development if the market does not drive it.

7 implications and opportunities

There are a number of other matters which need to be considered when establishing the framework for long term growth in Traralgon. These matters relate to both opportunities that need to be considered in relation to proposing a future growth strategy, but also other matters which may constrain or otherwise influence development in Traralgon. These include the following:

- wider global trends and outlooks;
- impact of growth planning on the community; and
- increased urban sustainability.

7.1 wider global trends and outlooks

On a wider outlook, there are various 'future shapers' which may influence the way our communities function in the future. Some wider global or regional future shapers that may change Traralgon and surrounds are:

accelerated global warming (impacts on rainfall, climate, agriculture)

There will be increased demand for structural changes in the economy of energy production that will alter the employment resource requirements for the Latrobe Valley, projected economic development, and social and community needs. With future development of clean coal utilisation and industrial processes that benefit from proximity to sources to improved efficiency in energy production, both positive and negative impacts on the local economy may alter the demand for urban growth. The establishment of new industries may offer increased employment opportunities or require different land use areas or conditions. The area may also see increases in population growth as people seek more tolerant climates following accelerated global warming impacts. Adverse climatic changes in northern parts of Australia will favour more comfortable living environments for an increasingly ageing population. Progressive increases in temperature in what are currently considered to be temperate climates, and the variable nature of available rainfall of these areas may increase the attractiveness of southern Victoria.

peak oil and impacts on transport and industry/commerce

The need for improved efficiency of transportation services will favour the use of natural gas, hydrogen and electric powered vehicles. This will assist in improvements in air quality. It is likely there will also be a significant increase the patronage of public transport services should they be provided in a functional manner. There is also likely to be an increase in pedestrian and cyclist movement as the health and environmental benefits become more widely accepted. This may lead to a reduction in the extent of parking required within Traralgon. Regional goods movement will benefit by the proximity of rail services, and local-regional industry and commerce may become more important. Export goods and services are most likely to be higher order technological industries, such as the existing manufacturing of commercial aircraft at Latrobe Regional Airport.

water scarcity (based on accelerated global warming or population increase)

The twin pressures of more people needing to access shrinking water resources will mean a necessary shift in the way urbanisation occurs. The need for continued maximisation of utility of available water resources will be a prerequisite for future urban development. Projects, such as the recent Kogarah Town Square Project in Sydney, or Melbourne Water initiatives for inner metro areas, which seek to capture and utilise all rainwater, stormwater and greywater, will become the norm rather than the exception in new urban areas. Increased integration of existing drainage lines and creeks within the urban areas with traditional 'hard infrastructure' will provide for more integrated communities.

technology advances (impacts on transport, liveability, built form, environment)

Innovation in the design, lifecycle, and in the energy management of new urban developments will again alter the future form and character of Traralgon. Buildings will necessarily achieve increased levels of energy conservation. The required star ratings for energy saving will only increase over time and consumer demand for efficiency in their buildings will increase as the price of energy increases and more awareness of the financial benefits of energy conservation is gained. Increased locally responsive climatic design will be mandatory. Roof gardens, wall gardens, community gardens and streetscapes will inevitably become the future resources for food production, energy management and local microclimate management.

changes to coal industry and moving towards a low emission economy

The improvements in the quality of coal production, and of the standards of air emission management generally will undoubtedly increase the liveability of Traralgon. This will reduce the required extent of buffers, and the opportunities for employment within the residual, but lessened buffer areas. Depending on the future energy needs and/or alternative uses there may be some reduction in the identified coal resource areas. The ambient sulphur odour from the Australian Paper Mill, which is intermittently but noticeably present within Traralgon, may also be reduced in the future.

7.2 community impacts

If urban growth is not planned and facilitated in a sustainable manner the community can experience adverse impacts including:

- Loss of productive farming land and other natural resources;

- Lack of affordable housing;
- Lack of housing choices (i.e. diversity in housing stock);
- Reduced sense of place;
- Higher car ownership and increased car dependency; and
- Marginalised communities with increasing health problems (such as obesity, through lack of active recreation, or illness through lack of access to health services).

An important consideration in planning urban growth in Traralgon is the ability to grow whilst still maintaining liveability elements and providing critical community needs to service a growing population, such as health care and education. Some of these factors are outside the scope of local government responsibility. However, planning for urban growth should take account of these needs for community infrastructure and the need to create places that people desire to live in because they provide all the necessary services and liveability factors, such as safety, landscaping and walking or cycling to work or school.

It is also important for the community that they see benefits associated with increased population densities (such as increased provision of public transport and more viable businesses) rather than just negatives, such as longer child care waiting lists or increased congestion of roads. As such, any long term plan for urban growth needs to 'think big' in relation to the provision of services and facilities, as well as other 'landmark' projects that can alter the urban structure of the city and improve linkages etc.

The proposed Traralgon bypass also has the potential to impact on the community. Key socio-economic issues in terms of advantages and disadvantages of the bypass can be determined against the following issues:

- Community cohesion;
- Amenity effects;
- Access and movement patterns;
- Land use and property;
- Effect on business activity; and
- Tourism.

It is recognised that with the introduction of the bypass there will be a number of adverse impacts in some locations but beneficial impacts at others. It is anticipated, however, that the new Traralgon bypass will have little impact in terms of community cohesion due to the low population concentration adjacent the bypass alignment, given the existing ESO which prevents development in the area where the bypass is proposed.

7.3 increased urban sustainability

A sustainable community is one in which a range of services and facilities such as shops, schools, some places of work, parks, community uses (e.g. church or community centre) are within 10 minutes walking distance from home. This is characteristic of the original centre of Traralgon, and similar to regional centres of places such as Bendigo, Ballarat, and Castlemaine, prior to the post war suburban expansion. Sustainable communities have high levels of connectivity, and the layout of streets and allotments, and the form of development is designed to promote convenient pedestrian access. A further distinguishing feature of these areas is the mix of land uses. Shops, offices, apartments and homes are provided within streets, allotments, and individual buildings.

The quality of design of these areas is recognised as a positive feature which encourages community pride and the use of the public environment. The extent to which community interaction is promoted within the street system and in public spaces is again a positive feature of community health. Again this is a recognised feature of the traditional "country town", and is an often sought feature of the new urban villages. Compact forms of living are more effective for the delivery of transport, and particularly public transport services. They can also achieve increased energy efficiency, and are able to more effectively protect natural resource areas, by concentrating development where impacts are less significant or can be mitigated.

The street systems within sustainable communities promote pedestrian and cycle movement and the management of vehicles and parking is designed to limit its impact on the public environment.

An integrated management system for water is also a feature of a sustainable community. All elements of the water cycle, such as water supply, sewerage and stormwater need to be considered as part of an integrated system. The objectives of this approach are to encourage reduced water consumption, ensure high quality urban stormwater runoff, maintain downstream water flows at pre-development levels, integrate stormwater management with landscape and open space design and development, and minimise waste-water output and encourage recycling of treated water. Multi-purpose drainage corridors which include stormwater management systems such as filtration and detention basins with recreational facilities are to be provided in these developments.

Within a sustainable subdivision, to achieve the best value from solar design, the lots need to be orientated to achieve optimum solar gain. Where this cannot be achieved, or solar access is poor, larger allotments and non-residential uses should be located in these areas.

7.3.1 networked city: transport efficiencies

Similar to the 'network city' model for Latrobe, an ideal Traralgon would comprise a network of activity centres of varying sizes that would be independent in their own right and connected to each other through a well planned road network that incorporated public transport linkages as well as cycle and walking pathways. This would involve the division and subdivision of space into a vast mosaic of small places rather than the one large homogenous urban centre. As such, any plan for growth should investigate opportunities for both increased public transport access, for instance, access by train to the Latrobe Regional Hospital, and also a distribution of local centres to promote walking, and clear and regular bus access to larger centres. In addition, networking towns through clear cycle paths is another way to increase efficient transport. There will be a number of amenity and community benefits by removing the through traffic

from the city centre, ranging from safer journeys for all road users, including motor vehicle, bicycle and pedestrians, to health benefits from the reduction of vehicle trips and associated engine emissions. There is also the opportunity to develop partnerships within the community to help facilitate the growth and development in the future.

7.3.2 urban consolidation

Urban consolidation of the established urban core is critical to Traralgon being able to accommodate its projected population in a sustainable manner, particularly given the physical constraints that limit Traralgon's urban growth. This would involve infill of underutilised land and higher residential density targets coupled with improved pedestrian pathways and overall streetscape amenity (e.g. tree planting) as mentioned above. "Before and after" imagery shown below can show what could be achieved with urban consolidation of established urban areas. The development of the Traralgon bypass will present a number of opportunities to the study area and help ensure the predicted growth over the next 40-50 years can be accommodated in a sustainable manner.

Partnerships between State and Local Government (and their respective agencies, for example, the Department of Education, VicRoads etc.) and developers, land owners, and community or recreational organisations will be paramount to ensure the most effective and planned growth takes place. It is important to recognise these when planning for the future of Traralgon to ensure that the growth can capitalise on the benefits that exist to the present and future populations of Traralgon.

7.3.3 water sensitive urban design (wsud)

It is anticipated that stormwater treatment, using WSUD techniques such as wetlands and bioretention swales, will be considered within the study area (subject to Council approval of these measures). Wetlands use enhanced sedimentation, fine filtration and pollutant uptake processes to remove pollutants from stormwater. As an alternative to wetlands, vegetated swales provide removal of coarse and medium sediment and reduce the impact of increased catchment imperviousness on peak flow rates using overland flow and mild slopes. A bioretention system can be installed in the base of the swale, forcing runoff to percolate through prescribed filtration media providing treatment through fine filtration, extended detention and some biological uptake. Bioretention swales also provide increased flow retardation and nutrient removal.

Other stormwater treatment systems, such as buffers or ponds, may be considered for the study area.

7.3.4 'an ideal traralgon'

Key drivers for future urban development within Traralgon will not be the latest fad in housing estates on the fringe of Melbourne, but rather more fundamental issues such as the availability and therefore, the price of oil and energy; the needs of community health and welfare; changes in family size that will continue to fundamentally change the demand for specific types of housing; ageing of the current and additional population; and a revolution in transport needs and services. We know that this future urban environment will be more compact, with increased access to a wider range of services and facilities. The value of property will not be as strongly determined by the size of the allotment or the floor area of the accommodation, but rather the proximity to the core area, facilities, parks, schools and long term affordability of accommodation (not just the initial purchase price). Traralgon, like the other key regional centres of Victoria will continue to be a grand and gracious city, with wide and attractive boulevards flanked by a mix of developments, and a vibrant pedestrian orientated environment. This is not an unrealistic expectation and the essence of the truly great cities of the world. To achieve this almost utopian city, there will need to be a fundamental shift in the priority given to certain forms of land use, such as roads principally for private cars, and areas of homogenous forms of land use. The future Traralgon will have a number of distinguishing features such as:

- A range of housing options, including apartments, hostels, affordable housing, backpackers accommodation, increased aged care facilities, but with employment uses co-located within these areas;
- Increased focus of development around existing and proposed key public transport facilities;
- Full utilisation of vacant land within the core and inner areas of Traralgon;
- Resiting of non-residential land use to a location and in a form that provides for more efficient use of available land; and
- More highly integrated business and employment areas.

7.3.5 principles for sustainable urban growth

The sustainability objectives that should be pursued, if the future urban growth of Traralgon is to occur in a sustainable manner, are as follows:

- Reduced energy consumption;
- Increased walkability;
- Improved community health;
- Reduced motor vehicle reliance;
- Improved water management; and
- Increased community cohesion.

In terms of increased walkability, appropriate walkable catchments for people to access community services or facilities from a certain location are widely considered to be:

- 400 m – 5min
- 800 m – 10min
- 1,600 m – 20min.

Contributing to the ongoing sustainability of Traralgon will be the following:

- Higher residential densities (number of dwellings per hectare) in appropriate areas
- Increased housing stock within the CBD
- Rezoning/redevelopment of land to reflect more optimal use of land (residential, commercial, industrial)
- Focusing of medium density housing opportunities along major transport spines to facilitate an expanded public transport system and the provision of walking and cycling corridors
- Raising the bar on sustainability initiatives relating to urban growth

The following represents some of the matters which should be considered in relation to sustainable growth planning:

1. Accessibility

Does the location have, or will have in the future, capability for public transport access? Similarly the combined effect of these development areas may create a network of activity areas “string of pearls” that can support improved public transport delivery.

2. Interface

How appropriate are the land uses which surround these areas for intensification? (e.g. the area is bounded by low density residential development and do the owners have expectations regarding this context?). There may also be instances where the adjacent form of land use is non-residential.

3. Site scale

Is the site of sufficient size to permit comprehensive infill and with a range of densities and dwelling types? Will it be able to achieve its own critical mass and provide a stimulus to development within adjacent areas?

4. Access to facilities and services

What facilities are within the walkable catchment of the proposed development area? What is the delivery of open space areas and recreational areas near to the site? Is there a need to provide supplementary facilities on the subject site?

5. Sustainability targets

How can the use of the site contribute to sustainability objectives of the Traralgon centre and Latrobe Region?

6. Availability

Is the site available to the market? This approach has been adopted by the Victorian Growth Areas Authority, in assessing the potential to achieve immediate growth targets.

7. Facility focus

Within these more intensive residential areas, which will have a range of associated employment opportunities, the population threshold may be reached for supplementary facilities and services. Do these users themselves provide a focus for activity, and contribute to the place-making and the character of the development area?

7.4 multi-faceted approach to the management of growth

While urban growth has currently been focused on providing one or more ‘greenfield’ locations where very similar types of detached single storey dwellings following similar templates has been provided, there have been few options in terms of diversity of growth options. There is an opportunity for a multi-facetted approach to the delivery of new residential areas within Traralgon which is flexible and adaptable to the changes which occur in demand and supply of new residential project sites.

There are a number of candidate projects that can collectively deliver all the residential growth requirements of the city. Depending on the relative activity within these potential development areas, the trigger points for initiatives such as relocation of existing uses (e.g. golf course, redundant industrial areas) will be progressively activated.

Thus if there is substantial inner city intensification, and concentrated development within the planned growth areas at the periphery of Traralgon, there will be an opportunity to delay or, if preferred, accelerate redevelopment of non-residential sites.

In this way a more flexible and dynamic model can be used to accommodate the anticipated growth. By avoiding the tendency to deliver all growth within a standardised form of delivery, such as utilisation of all parcels of land that is unconstrained, and supported by willing developers, there is scope to improve the diversity of form, location, and cost of housing options as well as the overall quality and liveability of Traralgon and surrounds. Depending on the level of success of this multi-faceted approach there may be increased capability to accommodate most of the anticipated growth for residential, commercial and industrial within the existing Traralgon urban area, whilst also allowing some moderate growth in other areas.

To facilitate the delivery of development opportunities with the existing township area there is a need to continue to promote and foster the principles of sustainability, and to provide clear strategic direction for redevelopment areas, in the form of precinct structure plans and urban design frameworks. Some of this work has been completed to the south of the Traralgon Railway Station (i.e. Traralgon Inner South Precinct - Draft Master Plan Report 2009) and this can inform the preparation of revised plans for this area, and other inner city locations. At present there is a genuine willingness by the key stakeholders to support more sustainable outcomes for the city, however there is also a need to see this manifest in future projects.

7.5 density targets and development triggers

The challenges Traralgon faces with its future urban growth options being severely constrained means that it will be forced to make hard decisions about urban form and targeted redevelopment of strategic areas in

conjunction with new urban growth in 'greenfield' areas. Traralgon is projected to have a population of over 40,000 persons by the year 2030. It is difficult to predict accurately long term population growth figures; however should this projected growth rate continue at the same rate beyond 2030 then Traralgon could expect to have a population upwards of 45,000 persons by the year 2050. Due to the difficulties of long term accurate population forecasts, the development triggers will be activated once a population level has been achieved. The recent draft Gippsland Regional Growth Plan flags potential for even greater growth to occur within Traralgon and Latrobe City as a whole, should the City develop to its full potential as a Regional City.

The total study area is approximately 16,354.36 hectares in size and is much larger than required to accommodate anticipated future urban growth. It is estimated that there is 253.6ha of vacant land within the five existing urban precincts of Traralgon, including Transit Cities, Inner South, North West, North East and Inner South East precincts. Through amendment of current planning mechanisms, to achieve higher density living and redevelopment of strategic sites, much of the anticipated future growth can be accommodated within these five existing precincts.

There are also options for growth within Glengarry and Tyers and potentially within the Traralgon-Morwell corridor which will further increase the timeframes before new 'greenfield' areas need to be released.

Housing densities within new 'greenfield' areas also have a strong role to play. The current standard for average housing density is 15 dwellings per hectare (as detailed in the Victorian Government Precinct Structure Planning Guidelines). This equates to an average lot size of 667m2. A recent Council resolution seeking a density of 11 dwellings per hectare will need to be investigated further through a future Housing Strategy as this density will have consequences for the ability of Traralgon to grow in the longer term. However, it is acknowledged that, within a regional context, seeks a density of 15 dwellings per hectare in all areas may not be responding tho market demand and some further investigations to the appropriate densities for particular areas, rather than overall standards is supported. The Traralgon Activity Centre precinct, for example, should achieve a much higher density of dwellings per hectare than the standard, as should be expected when the majority of accommodation within this area will be in the form of apartments.

For the townships of Glengarry and Tyers and outer areas of Traralgon (low density areas), a smaller target should be applied to maintain the rural township character, provide diversity in housing choice and due to physical constraints such as sewerage infrastructure and bushfire threat.

There are a number of options available to Council in relation to planning mechanisms, particularly through the use of zoning and amendments to the zonings schedule, which allow for minimum subdivision sizes to be adjusted. Currently within the Latrobe Planning Scheme the following zones are in use:

- The Rural Living Zone; this has a default minimum subdivision of 8h. Within the Latrobe Planning Scheme there are a number of schedules to the Rural Living Zone allowing subdivision down to 0.4, 1, 2, 4, 5 and 8 hectares.
- The Low Density Residential Zone, with a default minimum lot size of 0.4h
- The Residential 1 Zone / General Residential Zone, which does not set a minimum, but nor does it set a maximum subdivision size.

If pursued, higher housing density outcomes can be achieved through intervention in current planning mechanisms such as smaller lot sizes (i.e. higher targets for housing density per hectare) and the potential redevelopment of a number of strategic sites to facilitate urban development within the existing urban extent or the use of zones such as the Residential 2 Zone / Residential Growth Zone.

It is important to recognise that density targets apply across large areas and thus do not require all dwellings within an area to be developed at the same 'average ' lot sizes but encourage a diversity of lots sizes, with some smaller townhouse or medium density development in areas, and other areas potentially accommodating more standard or larger lot sizes.

The redevelopment of strategic sites within Traralgon plays an important role in this aim and any redevelopment of strategic sites within the urban area should aim for higher densities. It should be noted that in some cases, such as the racecourse, the redevelopment of these sites does not necessarily require that removal of the exiting uses. Decisions about each site need to be made in association with the landowners or site managers. Some sites may be ruled out for the foreseeable future. Decisions that effectively lock these sites into long term fixed uses that perpetuate current inefficiencies in the urban form should be avoided.

Potential strategic redevelopment sites in Traralgon's existing urban area include:

- The Golf Course north of the Princes Highway;
- At-grade car parks and vacant lots in Traralgon's Activity Centre;
- Older industrial areas within the existing urban areas, where longer term relocation would be advantageous; and
- Large and underutilised recreation areas.

These and other opportunities will be identified through the *Traralgon Growth Areas Framework*.