



Appendix F Transport and access

Alpine Shire Council

Land Development Strategy

November 2023



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Contents

1.	Introduction	4
1.1.	Scope	4
1.2.	Background	4
2.	Context.....	6
2.1.	Summary of Key Policy Directions	6
2.2.	Summary of existing conditions, issues and opportunities	7
3.	Forward Look – Transport and access in 2050	9
4.	Travel Behaviour	11
4.1.	Alpine Shire Transport Task	11
4.2.	Journey to work	11
4.3.	Summary of Travel Behaviour	13
5.	Transport Networks	14
5.1.	Alpine Shire Arterial Road, public transport and freight network	14
5.2.	Shared path networks	14
5.3.	Active Transport Catchments.....	15
6.	Summary of Key Findings	16

1. Introduction

The Alpine Shire Land Development Strategy (LDS) is being prepared to guide land use change for residential, commercial and industrial land in the Shire to 2050. In order to plan for future growth, the LDS will undertake a holistic analysis of projected growth, constraints and opportunities for the Shire. Access to jobs, education, goods and services, recreation and social activities is a key consideration in how the municipality grows.

This advice is prepared on the basis that the expected level of growth in the Shire presents a significant opportunity for investment in the transport networks and public realm, and that a 'business as usual' approach to the transport network will result in a lost opportunity to improve social, economic and environmental outcomes for the Shire. As such, this advice assesses the nature of the transport networks and public realm required to support the likely growth scenarios in a sustainable way, and that supports Council's broader policy agenda for sustainability and liveability.

1.1. Scope

This advice provides a transport and access 'lens' through which potential growth and rezoning opportunities for the Shire should be assessed. It is based on the following approach to building a sustainable transport network to support the growth and liveability of Alpine Shire:

1. **Provide transport choice for our community.** While private vehicles will remain a dominant form of transport for many types of trips, there is a strong rationale to provide access to a range of retail, services, recreation, employment, education, and social opportunities by active transport (walking and bike riding).
2. **Ensure a high standard of road access for freight and regional movements**, noting that Alpine Shire is reliant on larger population centres and wider regional networks for access to higher order services, employment, and the movement of goods into and out of the municipality.

This advice is consistent with the 'movement and place' approach adopted by the Victorian Government (*Movement and Place in Victoria*, Department of Transport 2019).

1.2. Background

Council is preparing the LDS to guide the ongoing growth and development within the Shire. This includes consideration of a wide range of constraints and opportunities, including:

- A range of population and demographic forecasts for the Shire
- Key natural constraints such as fire and flood risk
- Planning or environmental factors such as character, significant landscapes and a settlement hierarchy

- Broader technological and societal trends such as the rise of remote working and population shifts due to the COVID-19 pandemic and other factors.

The population in this Shire is forecast to grow from 13,300 to 17,500 (high growth forecast, SGS Economics 2021). Further to population growth, there is expected to be additional accommodation built as investment properties / short term accommodation. This means that additional land may need to be rezoned to meet demand, over and above population growth.

2. Context

2.1. Summary of Key Policy Directions

The review of existing relevant policy illustrates several themes that inform the approach to land development and population growth in Alpine Shire. These include:

- All land use planning and public realm investment decisions should be informed by the Transport Integration Act and the 'movement and place' framework for Alpine Shire. The Movement and Place in Victoria policy developed by Transport for Victoria is the appropriate planning tool to determine the road user and place hierarchy across the transport network.
- Social determinants of health, including transport, have a clear impact on healthy outcomes for communities and individuals. Giving people a greater transport choice in a quality built environment improves social connections, physical health, access to employment and equity.
- Planning for new development must consider providing for and promoting sustainable and active transport modes in accordance with the movement and place framework, and have regard for key state policy directions such as the '20 minute neighbourhood' concept, to ensure people can access a wide range of everyday needs by a range of transport modes, not just cars.
- Promoting sustainable transport (walking, cycling) is important for a wide range of reasons:
 - Socially connected, liveable communities – places where people walk and cycle are likely to perform better on a range of social indicators.
 - Healthy, active communities – there is a strong link between active transport and health.
 - Transport efficiency – increased use of sustainable transport has environmental and economic benefits through reduced greenhouse emissions and reduced space required for vehicle movement and storage.
 - Access for all members of the community – a large number of people in the community do not or cannot drive, and the provision of attractive and viable alternative means of transport is a key factor in whether a community is affected by transport disadvantage.
 - Safety – Increased sustainable and active transport improves safety and perceptions of safety.
- Alpine Shire is reliant on access to larger regional centres (primarily Wangaratta and Albury-Wodonga) for a range of higher order services and employment. Due to the low population density within the Shire, it will be challenging to reduce reliance on private vehicles for travel to these key destinations. This will place ongoing limits on the levels of access and transport choice of the population within the Shire, particularly for ageing populations and those reliant on higher order services such as advanced health care.
- Alpine Shire's population is highly concentrated into the key townships of Myrtleford, Bright, Porepunkah and Mount Beauty-Tawonga South. Overall, the Shire is well placed to provide for future growth within existing town boundaries and adjacent areas. These areas are capable of being developed as sustainable and resilient communities, with a high level of accessibility to goods, services, employment, education and recreation opportunities.

2.2. Summary of existing conditions, issues and opportunities

- Alpine Shire's population is relatively concentrated in and around the three main townships of Myrtleford, Bright and Mount Beauty-Tawonga South. This includes adjacent areas such as Porepunkah, Wandiligong and Tawonga.
- The Shire's population is ageing and likely to continue to have a higher than average proportion of people aged over 65 years. As such, providing a compact urban settlement form with a range of housing types, and walking access to a range of goods, services and facilities is an important planning consideration for the LDS.
- Alpine Shire is generally reliant on private vehicles for a wide range of trips, given the existing limitations in higher order services, education and employment within the Shire. Limited public transport services, and reliance on a few key routes (e.g., Great Alpine Road and Kiewa Valley Highway) result in limited accessibility for many members of the community who don't or can't drive. This includes:
 - Lack of access to tertiary education and employment. Many young people chose to move to larger centres when they leave school to access the wider range of education and employment options which are not readily accessible living in the Shire.
 - Lack of access to higher order health care and other health services. For many older people, the ability to age in place is a key determinant on their quality of life, however the lack of accessible services for the ageing population means that many people are forced to move to larger centres when ageing. This is compounded by a lack of suitable housing in Bright, Myrtleford and Mount Beauty.
- Alpine Shire has a mature road network which provides a good level of service for freight and vehicle movements, noting that within Bright, there is some pressure on the transport network and car parking at busier times. Further work is being undertaken in Bright to manage these transport pressures and improve options for access in and around Bright. The pressures include:
 - Tourist traffic and car parking pressure over large parts of the year
 - Freight movements through Bright, including plantation harvesting vehicle routes.
 - Over-reliance on Gavan Street for movements through Bright.
 - Poor pedestrian connectivity between key destinations within Bright, leading to over reliance on private vehicles, even for short trips.
- Currently, the level of parking and traffic congestion in Bright at peak times indicates that increased focus is needed on active transport, since it is assessed that many short trips are undertaken by car due to the perceived ease of driving compared to walking. Typically, short trips under 1km (for walking) and up to 5km (for cycling) can be converted from cars to active travel, if the right infrastructure and policy conditions are in place. Increasing active transport also has benefits to the safety, activation and amenity of the centre, as it becomes less dominated by cars. It is recommended that the Bright transport investigation project investigates holistic management solutions to the current congestion, rather than focus solely on supply side interventions.
- Some transport networks in the Shire lack resilience as fire and flood events can limit access and evacuation routes. This infrastructure constraint is mainly based on the topography of the Ovens and Kiewa Valleys, which limits the potential to create a meaningful range of options for egress in

key locations such as Bright and the Upper Ovens Valley. Further work is needed to understand and mitigate issues relating to access during emergencies, however the limitations of topography mean that other management measures (e.g., providing the ability to shelter in place, or leave early) may be more appropriate than building additional road infrastructure. Any assessment of emergency egress / transport should be done in a coordinated way that considers the emergency management planning for the Shire as a whole, rather than just transport routes.

- The Shire has an established and expanding network of shared paths and trails, particularly in the Ovens Valley. These provide some accessibility options for residents (e.g., school children travelling to school) but mainly function as recreational and tourist routes.
- Within townships, the provision of pedestrian infrastructure (paths and crossing points) is inconsistent, with ongoing investment needed to provide safe, comfortable and convenient pedestrian access. Where provided, the pedestrian network lacks priority over vehicles at most locations. In addition, the existing footpaths are of varying standards and widths, and do not provide a uniform, safe, accessible network that encourages walking over other modes of travel.
- The Shire's road and freight networks operate satisfactorily, however there are some conflicts with larger vehicles travelling through town centres (e.g., Bright and Myrtleford). Work is under way in Bright to better manage the range of transport demands and existing conflicts, however it is noted that overall, the volume of freight movements in the Shire is relatively low and amenity impacts are considered to be localised.
- Public transport in the Shire consists of services from Bright to Wangaratta around 2-3 times daily and similarly from Mount Beauty to Albury. These services provide a very basic 'safety net' for those without cars, but the limited services mean they are not a viable option for access to employment or most services (e.g., healthcare). There are limited community transport options available and the overwhelming majority of travel over longer distances is by private vehicle.

3. Forward Look – Transport and access in 2050

There are a number of key changes and emerging trends in transport and access that will impact on the Shire by 2050.

The most relevant changes and trends are summarised as follows:

- **Improved internet connections:** the expansion of high quality internet to all members of the Shire's population (e.g., through satellite broadband as well as traditional infrastructure models) mean that many activities no longer require people to physically travel to higher order centres to access goods, services, employment and education. This includes:
- **Tele-health** – people no longer need to physically attend higher order health care services for many routine matters, meaning they can manage complex healthcare conditions and age in place without needing to travel to higher order medical services as often.
- **Employment** – the rise of remote working (for some types of work), particularly during COVID-19, means there is a greater acceptance of people undertaking work away from a communal work location (e.g., an office). This has freed up city-based populations and resulted in significant investment in the Shire by 'tree changers'. Over time, it is considered that most jobs will still require an element of face-to-face working, but there is likely to be significantly greater flexibility in work patterns.
- **Online shopping** – Expansion of internet shopping means that trips to larger centres to buy goods are no longer needed, as many goods can be purchased online. While sectors such as food, groceries and liquor are still mainly purchased in-store, these are typically available locally for Alpine Shire residents, whereas other goods not available locally such as clothing or manufactured goods are often purchased online.
- **Remote learning** – many education courses are now offered partly or fully online, including TAFE and university courses.
- **Move to Net Zero** – by 2050, our vehicle fleet will have changed to be largely or entirely renewable rather than fossil fuel based. This may result in lower overall vehicle ownership costs for households, as renewable vehicles are likely to be less costly to own and operate than fossil fuel-based vehicles.
- **Geopolitical disturbances and impacts on the fuel supply chain** – Geopolitical disturbances are hard to predict, however, at the time of writing fossil fuel prices are very high due to the Ukraine conflict and the associated international response. In this context, resilience to economic shocks in the transport sector will over time improve with the introduction of the electrification of the transport sector. Any sustained high fossil fuel costs are likely to accelerate the trend to electric vehicles and associated support infrastructure.
- **Personal mobility solutions** – the increase in popularity of e-bikes, mobility scooters and other electric mobility devices provides viable options for people to access a range of goods and services locally without needing to use a car. This provides a key opportunity for people to be less reliant on

cars (e.g., provides the ability to age in place for longer) but also requires consideration of infrastructure such as dedicated bicycle lanes and parking.

- **Mobility as a Service (MAAS) and Autonomous vehicles** – this trend is likely to impact our cities and areas with higher densities of demand, rather than rural areas. Essentially, rather than owning a private vehicle, people can share cars (e.g., ‘car next door’) or have access to a car when they need it, rather than needing to own one.
- **The introduction of autonomous vehicles, along with the move to net zero emissions** – may mean that it is feasible and cost effective to provide transport to access higher order services (e.g., health care in major centres), however the density of demand in Alpine Shire is likely to remain low, limiting the provision of shared transport services.
- **Innovation in air travel** – lower cost air travel through innovations such as drones and electric aircraft mean that short trips by air (e.g., to regional centres, or Melbourne, or for visitors to the Shire and alpine resorts) are more feasible, changing the way people access a range of employment, recreation and services. The extent to which this technology will complement or displace existing transport systems remains unclear, however it is likely that the Shire’s airports will become more significant as transport gateways.
- **Challenges to the transport network** – are likely to increase due to climate change. Planning will therefore need to consider increased risk of bushfire and the provision and protection of safe ingress and egress from areas at risk from, bushfire, flooding and landslides induced by heavy rainfall. In addition, extra costs will be imposed because of damage to roads caused by excessive heat and saturated ground conditions.

Technological changes will have meaningful impacts on our transport behaviour over the next thirty years. However, it is important to remember that despite all the changes that have occurred throughout history, a safe, attractive and accessible walking scale environment is the enduring and fundamental ingredient for making great places for people to live, work and play.

4. Travel Behaviour

The transport functions relevant to the development of the LDS include the Shire's arterial road and freight network, regional transport networks (including public transport), off road trail networks and local catchments that provide access to goods, services, employment, education and other opportunities within townships.

4.1. Alpine Shire Transport Task

Overall, the transport task in the Shire consists of three main types of movements:

- **Local movements.** Access to local goods, services, employment, education and recreation is concentrated within the townships and adjacent areas. This makes up a significant portion of the overall transport task, and typically these types of trips can be undertaken by private vehicle or active transport.
- **Intra-shire movements.** Access to employment, goods, services, education and other trips within the Shire, which typically require private vehicles (cars). This includes local freight movements, as well as trips by rural residents to access everyday services.
- **Regional movements.** Access to higher order services such as healthcare, shopping and education in regional centres, or freight movements into and out of the Shire. These movements are almost exclusively undertaken by private vehicle, with a very limited role for public and community transport.

The breakdown of the transport task by trip type for regional Victorian centres is indicated in Figure 1 below (source: Victorian Integrated Survey of Travel and Activity). It is expected that trips in rural areas such as Alpine Shire may have some differences from regional centres, but in broad terms they are expected to be comparable.

While work trips make up around 25% of trips and up to half of all kilometres travelled (often to destinations further afield) many other trip types tend to be local and are able to be undertaken by a range of transport modes, particularly active transport.

4.2. Journey to work

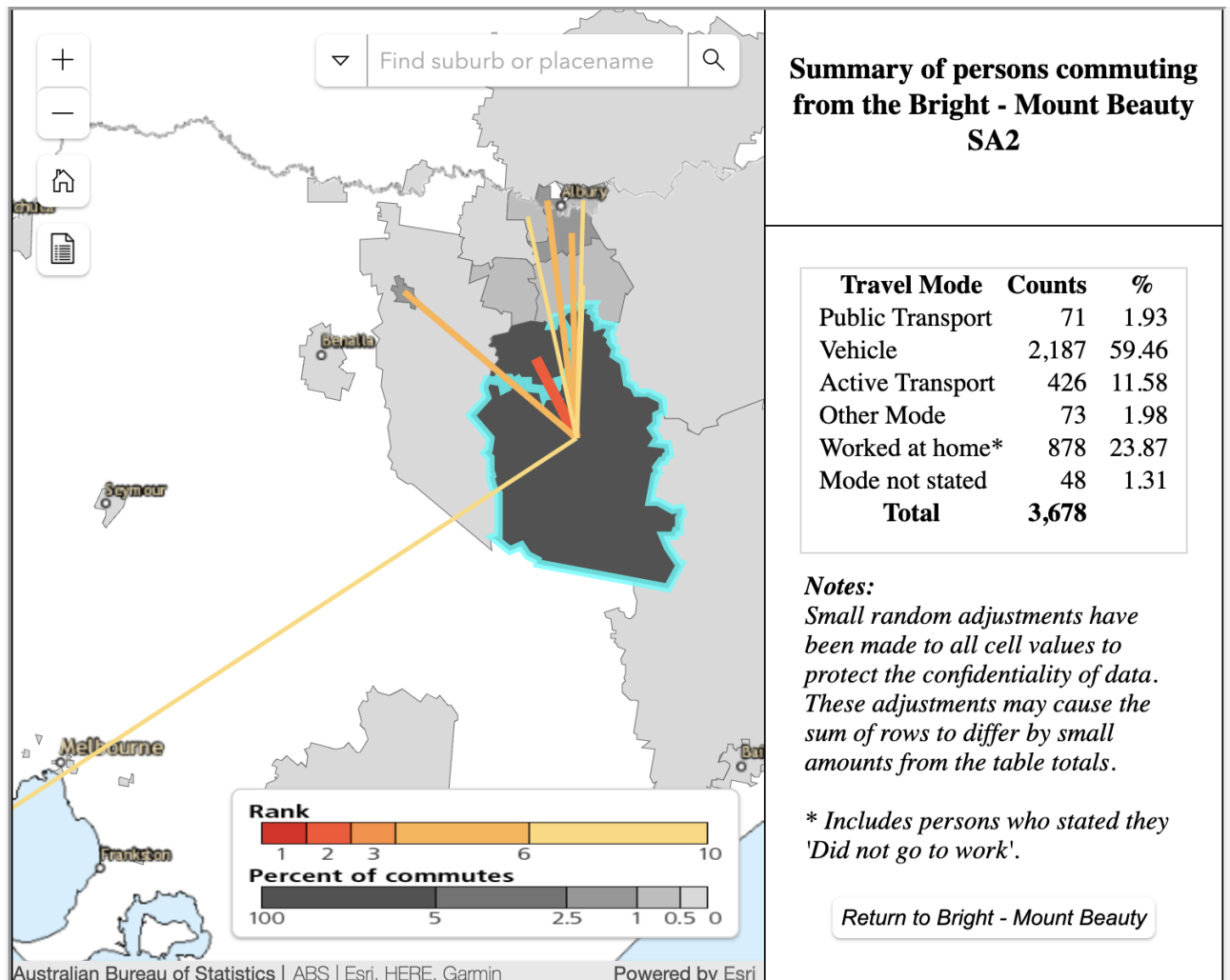
The 2016 Census of Population and Housing includes data on where people worked, and their mode of travel. Results are available for the Bright – Mount Beauty SA2 as well as the Myrtleford SA2.

As noted above, Journey to Work is not necessarily representative of all trips in terms of distance and mode of travel, however it does provide a key indication of travel behaviour.

For Bright-Mount Beauty SA2, the results show:

- Over three quarters of all work trips (76%) were undertaken within the SA2 area. This represents a very high level of employment self-containment, noting that many people whose employers are located elsewhere may have worked at home.

- The next most popular destination is Myrtleford (5.5% or 200 trips), with lower numbers commuting to Albury-Wodonga, Wangaratta and other locations
- Private vehicles make up around 60% of trips, almost a quarter of people worked from home (24%) and 11.5% used active transport to go to work (see Figure 2).



For the Myrtleford SA2, the results show:

- Two thirds of all work trips (67% or 1,343 trips) were undertaken within the SA2. This represents a high level of employment self containment.
- The next highest destination is the Bright—Mount Beauty SA2, with 9% or 174 trips for work.
- Private vehicles make up around 72% of trips, with 20% working from home and only 6% using active transport to get to work.

4.3. Summary of Travel Behaviour

Overall, the travel characteristics for work are characterised by a high level of self-containment, and a high reliance on private vehicles.

The Bright-Mount Beauty SA2 displays higher levels of active travel, working from home and employment self containment than the Myrtleford SA2., and it is likely that across the Shire, non-work trips display slightly lower levels of car travel, however cars will still be the dominant mode of travel for most trips.

There is limited data on travel behaviour for visitors to the Shire, however it can be assumed that most visitors travel to the Shire by private vehicle, but when in the Shire they will benefit from safe, comfortable and accessible walking and cycling networks both for recreation as well as accessing goods and services.

5. Transport Networks

5.1. Alpine Shire Arterial Road, public transport and freight network

The arterial road network consists of the following State managed routes:

- Great Alpine Road, Kiewa Valley Highway, Bogong High Plains Road (highways)
- Bright-Tawonga Road, Happy Valley Road, Dederang Road, Myrtleford-Yackandandah Road, Glenrowan-Myrtleford Road (Snow Road), Mount Buffalo Road (secondary roads)

There are no gazetted freight routes in the Shire, which reflects the relatively low freight volumes and lack of State-significant industry. However, most arterial roads have the ability to carry freight, and are generally unrestricted (e.g., through load limited bridges), however some roads in Alpine Shire have steep grades and geometry that limits the ability of larger vehicles to travel on these roads.

Public transport is limited within Alpine Shire, with bus services providing access two to three times per day between Wangaratta and Bright, and Mount Beauty and Wodonga. Private coach services provide access to the alpine resorts during winter season.

The limited services mean that it is not feasible to use public transport to access services in Wangaratta or Wodonga by public transport for most people.

There are some limited community transport options available through Alpine Health for transport disadvantaged people needing to access medical / health services in the Shire or nearby regional centres.

The arterial road and public transport networks are shown in Appendix 1.

5.2. Shared path networks

There are a range of shared paths in the Shire that provide for local access, as well as recreation and tourism use. Some links such as the rail trail between Porepunkah and Bright provide an important transport function, for example for secondary school students. There are a number of missing links and sub-standard conditions (e.g., lack of safe crossing points) on many shared paths throughout the Shire, which limits their attractiveness (e.g., to primary school aged children).

In general, many people are prepared to walk up to one kilometre and cycle up to five kilometres to access goods, services and social opportunities, if the route is safe, convenient and attractive. The provision of shared paths, with safe crossing points at roads, is a key contributor to the overall attractiveness of a town for tourism, as well as providing greater transport choice and increasing resilience in the community.

Key missing links in the shared path network include:

- The potential for a shared path loop around Bright, generally following Railway Ave, Cobden Street, Morses Creek and the Ovens River, connecting to the Murray to Mountains Rail trail at either side of the Bright CBD.

- Potential connections in Mount Beauty / Tawonga South between the Pondage / Pebble Beach walks, Simmonds Creek Road shared path, and the main Mount Beauty-Tawonga South path, which lacks definition and safe treatments in many locations.
- Direct connections to Myrtleford CBD and key attractions such as schools, to complement the existing 'loop' walks around Myrtleford such as the Mosaic Trail.

5.3. Active Transport Catchments

Within towns, the local walking catchments are important for a wide range of users, whether or not they also have access to private vehicles. These catchments should form the focus for new development and any rezoning within or adjacent to existing settlements, to ensure that new residential development provides transport choice for residents.

The local walking catchments are shown with a core area of 400m from the town centres and 800m (around five- and ten-minutes' walk). It is noted that there may be physical barriers or missing links that prevent all parts of the catchment from accessing the town centre, however the circular catchments provide a starting point for considering what might be a viable and feasible walking distance to access local services.

Cycling catchments are shown with a 2km (approximately five minutes' ride) and 5km (approximately ten minutes' ride) catchment. Similar to the walking catchment, there are numerous physical barriers and missing links in the cycling network that mean the attractiveness or feasibility of cycling from various locations within the catchments will vary.

The active transport catchments are mapped in Appendix 2.

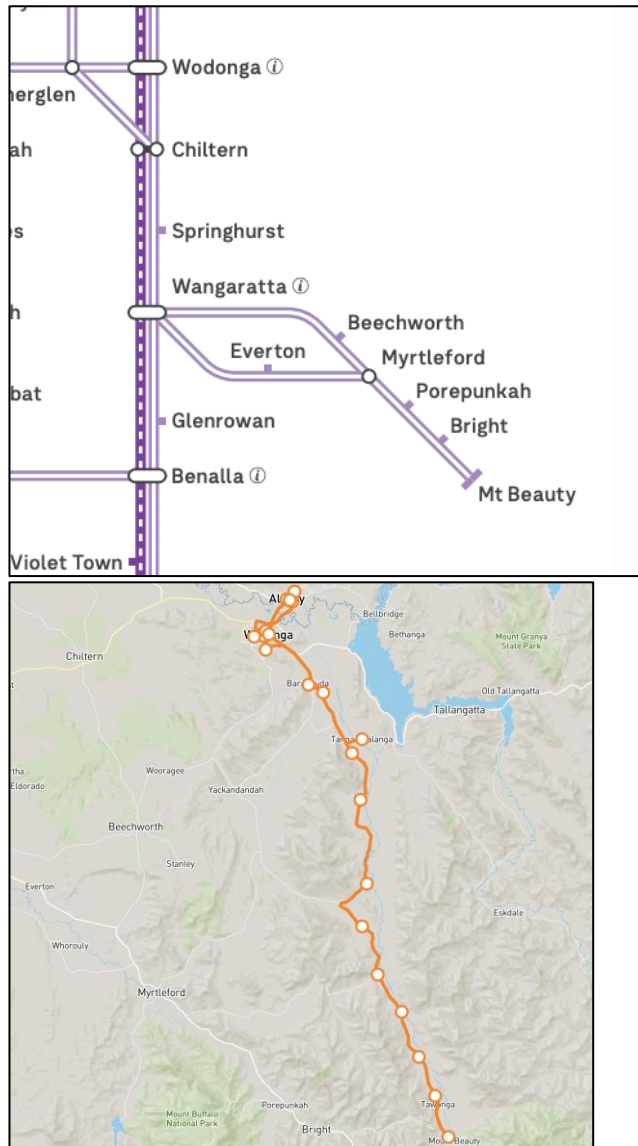
6. Summary of Key Findings

The key conclusions from the analysis of policy, existing conditions, future trends and the transport networks within the Shire have resulted in the following key directions for consideration through the Land Development Strategy:

- The Shire's road network is mature, with a high standard of freight and vehicle access available for most movements within the Shire. Further work is needed within Bright to manage congestion and conflict between modes at peak times, and the topography limits access for larger vehicles in some areas of the Shire.
- Local walking and cycling networks are not continuous, comfortable or safe in most areas of the Shire. Ongoing planning and investment are needed to ensure that both existing populations and new developments are well connected to local services by a range of transport modes, not just private vehicles. Despite the relative lack of infrastructure, there is a reasonably high level of active transport for work, education and recreation in the Shire. This can be further enhanced through ongoing investment and careful planning of new developments.
- The walkable catchment maps at Appendix 2 show that significant parts of Bright, Mount Beauty-Tawonga South and Myrtleford are outside convenient walking distance. In order to support a more resilient and inclusive community, consolidation of existing settlements around the town centres through infill housing / increased density is highly desirable, rather than significant growth on the fringes of towns or outlying settlements.
- Cycling is a relatively niche form of transport, however with the advent of e-bikes and other electric mobility solutions it is likely to grow in importance. In the context of Alpine Shire, it can provide an important element of transport choice for outlying communities. In particular, it is noted that:
 - Wandiligong and Porepunkah are (just) within the 5km cycling catchment of Bright, so it is likely that cycling will be a viable form of travel for certain types of journeys (e.g., travel to school or work, or to access services). This is supported by existing shared use trails to both townships from Bright, although there is a lack of connectivity within Bright itself.
 - Similarly, Mount Beauty and Tawonga South are within cycling distance of Mount Beauty town centre, noting that the cycling infrastructure between Mount Beauty and Tawonga South is not well defined or safe for users of all ages and abilities.
 - There are opportunities to provide improved infrastructure in Myrtleford to increase cycling as a form of transport within the urban area and low-density residential areas around the urban area (e.g., Buffalo Creek Road).
- New residential development in outlying areas should be limited, as car dependent communities tend to have lower levels of resilience and suffer from transport disadvantage (as well as a range of other inefficiencies in service provision). While there may be market demand for lower density rural living type settlements, these tend to provide poor long-term outcomes due to a range of factors, including lack of transport choice.
- There is a lack of resilience in parts of the transport network to provide access / egress during emergencies. Given the limitations imposed by topography, it is likely that solutions to this will be

largely emergency management and behaviour based, rather than providing significant new infrastructure.

Appendix 1: Transport Networks



Alpine Shire Public Transport Networks (source: ptv.vic.gov.au)



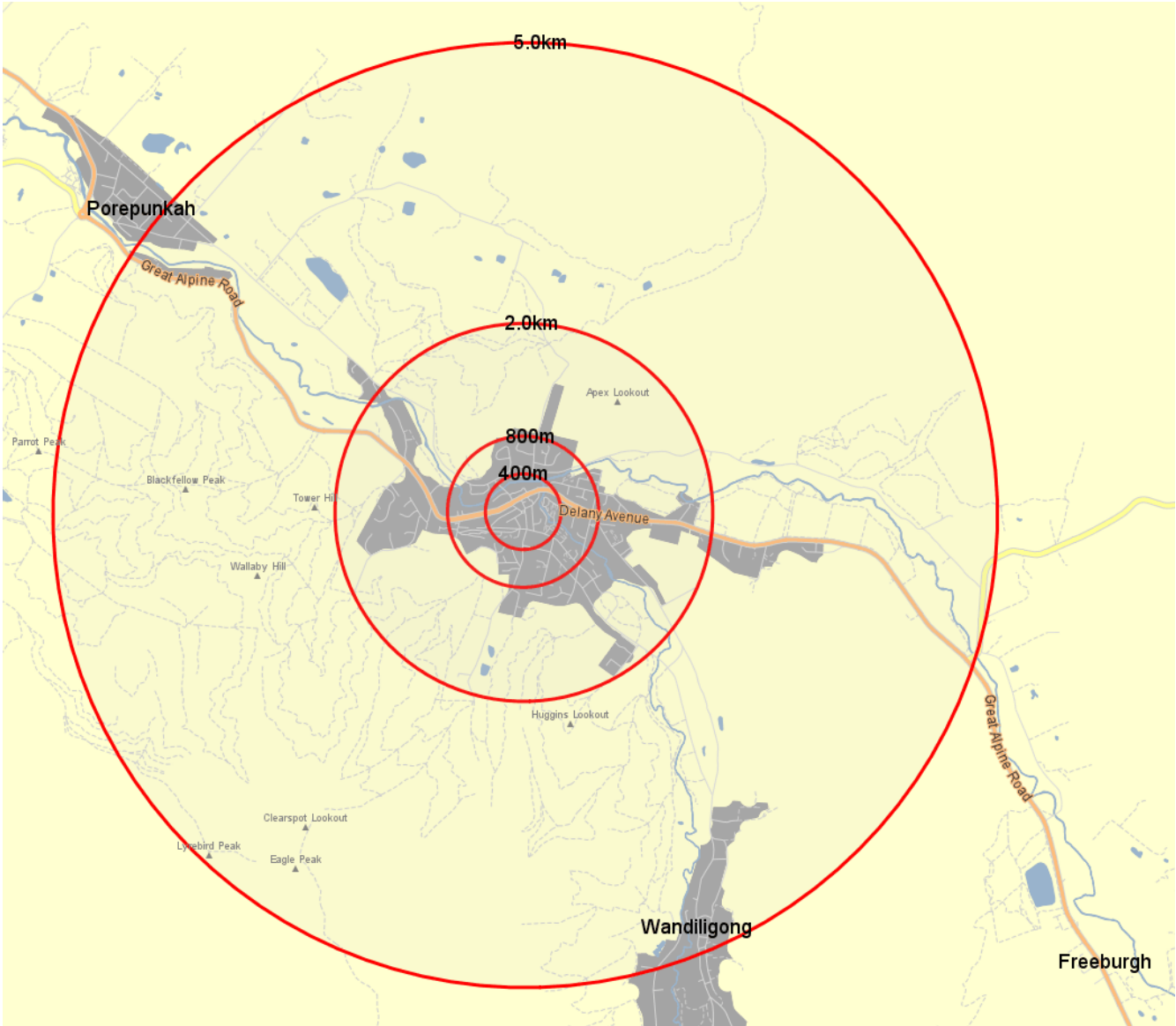
Alpine Shire Arterial Road Network (source: transport.vic.gov.au)

Appendix 2: Active Transport Catchments

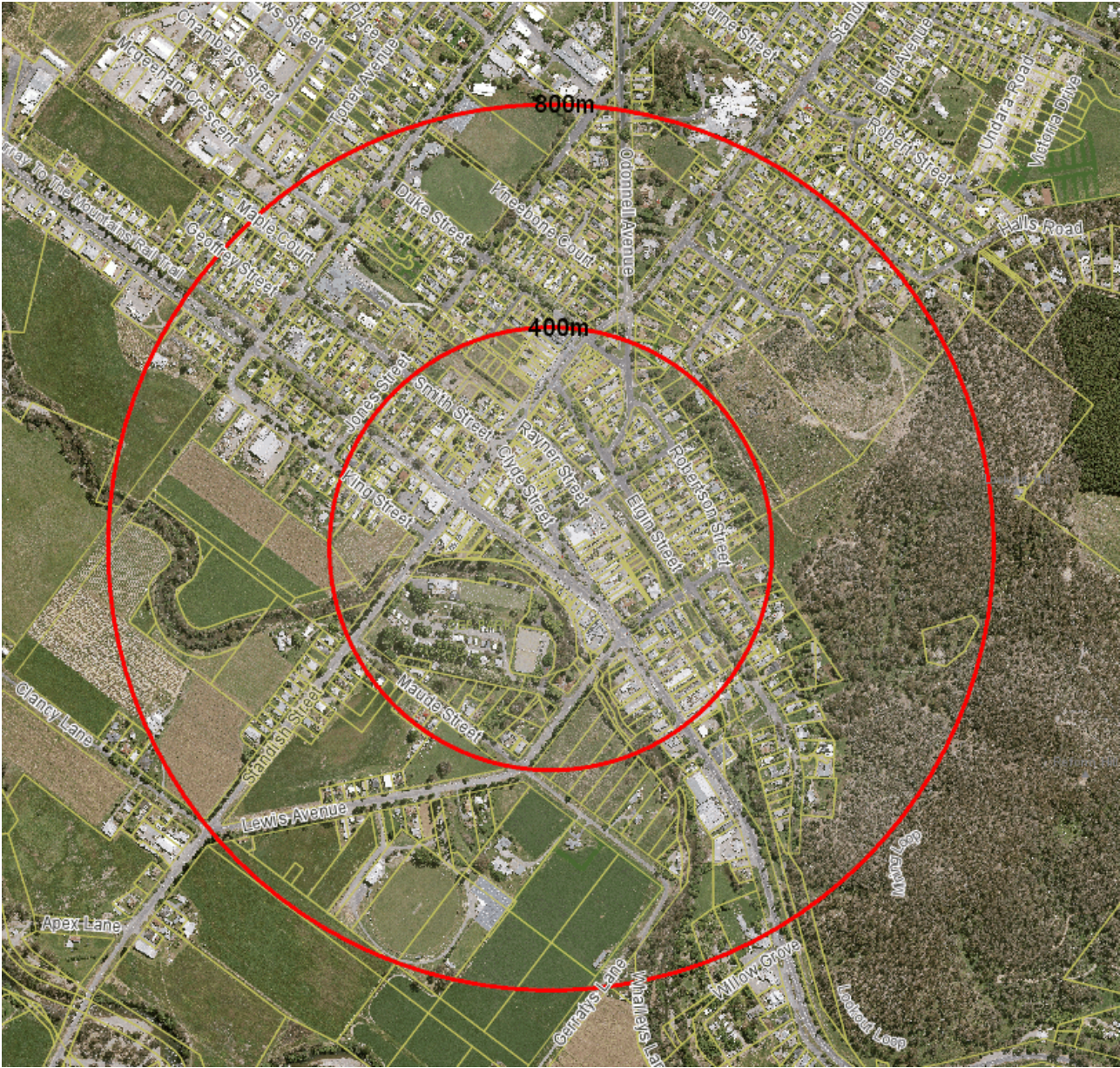
Bright walkable catchment – 400m (5 minute walk) and 800m (10 minute walk)



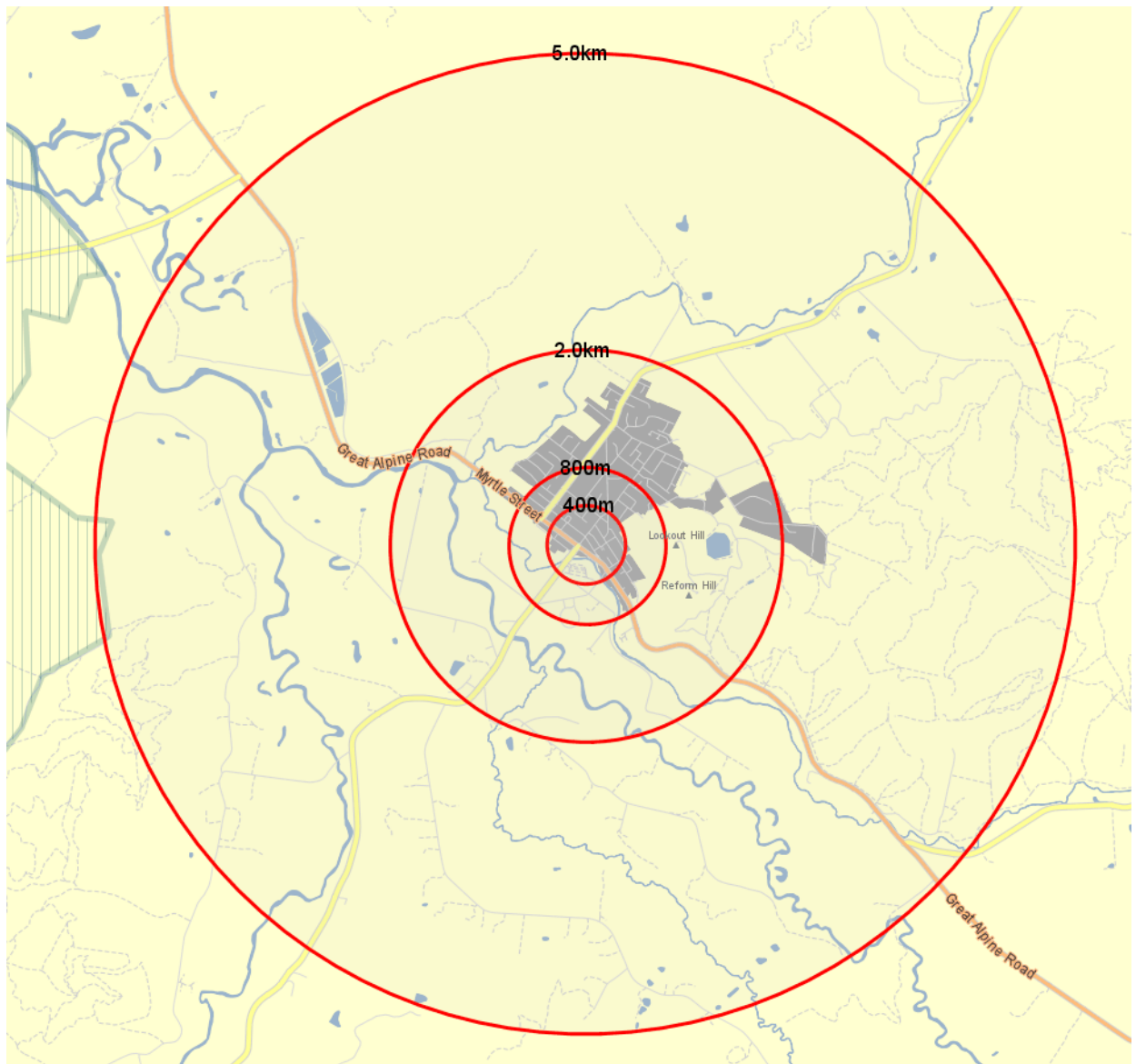
Bright cycling catchment – 2km and 5km radius



Myrtleford walkable catchment – 400m (5 minute walk) and 800m (10 minute walk)



Myrtleford cycling catchment – 2km and 5km radius



Mount Beauty walkable catchment – 400m (5 minute walk) and 800m (10 minute walk)



Mount Beauty cycling catchment – 2km and 5km radius

