Banyule Community Plan

Transport Discussion Paper

Disclaimer:
This paper has been prepared for the purpose of providing background information and the stimulation of ideas and discussion that will contribute to the preparation of the Banyule Community Plan. The content is not intended to represent the views of Banyule City Council or indicate its commitment to a preferred course of action.

July 2008

How we get around

Making the right decisions about the future of the transport network and accessibility in Banyule is about more than predicting and providing for greater travel movements over the coming decade. It is about the significant economic, social and environmental benefits that can be generated by developing, providing and investing in appropriate transport infrastructure to support the development of a more innovative, competitive and sustainable municipality.

Banyule's City Plan, Municipal Strategic Statement, and Integrated Transport Strategy all strongly reinforce the need to reduce car dependence in Banyule by promoting walking, cycling and public transport use as viable and preferable alternatives. This is also a key message of the State Government's plan for Metropolitan Melbourne - Melbourne 2030 and its transport blueprint "Managing our Transport Challenges".

To improve our community's way of life, we need to increase the range of personal transport options. The more sustainable transport choices people make, the better the environment will be for everyone's health and well-being. Sustainable transport, by definition, puts the emphasis on walking, cycling and public transport.

We need to look at the access needs of Banyule's diverse community in a way that is equitable and more sustainable, and recognise that Council needs to integrate transport planning with land use, health, social, economic and environmental planning objectives and all actions of Council.

Banyule has produced a number of high quality sustainable and active transport maps which give good reference to walking, cycling and public transport options and access in the municipality. These maps are:

- Banyule Bicycle Network
- Banyule Public Transport Network
- Banyule Pedestrian Access to Greensborough, Heidelberg and Ivanhoe Activity Centres.
- Pedestrian Access to Banyule's Neighbourhood Activity Centres.
- Pedestrian Access to Principle Public Transport Network in Banyule.
- Pedestrian Access to local bus network in Banyule.

The paper aims to set out the transport needs of residents, businesses, visitors and commuters while minimizing the negative impact cars have on Banyule's community. It includes a brief analysis of Banyule's current travel patterns and transport usage as well as its community and amenity needs relating to transport. It also looks at where Banyule needs to be in the long-term to achieve a more sustainable transport system and includes a hierarchy of transport modes which will help achieve that system.

What are our current methods of transport and their relative frequency of use?

1. Journey to work patterns

Studies show that significantly more journeys are made for shopping, social, recreational and personal business than to the workplace. However, it is the journey to work which places the greatest stress on the transport system due to the number of people needing to travel at the same time.

An analysis of 2006 Census data shows that slightly more Banyule residents (15.7%) walk, cycle and use public transport for their journey to work, compared with the Melbourne average (15.1%).

- 10.7% of Banyule residents travelled by train to work compared with the Melbourne average of 8.2%. An additional 697 or 13% of Banyule residents caught the train compared to comparable ABS figures in 2001.
- 12.3% of Banyule residents used public transport compared with the Melbourne average of 11.3%.
- 0.9% of Banyule residents cycled compared with 1.1% for the Melbourne average. However the number of cyclists has increased by nearly 30% since the 2001 census.
- 2.5% of Banyule residents walked to work.
- 61% of Banyule residents drove to work which is the same as the Melbourne average.
- Banyule's Public Transport use as a percentage of all motorised trips is 14%. The State Government has set a target of 20% public transport use for all motorised trips by 2020. Banyule residents are currently achieving 70% of the target set.

The Journey to Work statistics in Banyule is nearly directly comparable to JTW statistics for metropolitan Melbourne. However, there has been an encouraging improvement in the take up of public transport and active travel options in the last five years. The willingness of Banyule residents to walk, cycle and use public transport for the journey to work will need to be continually fostered into the future.

2. Cars as transport

Cars are the primary transport choice for many people and the demand for cars is increasing. Australian Bureau of Statistics data show that Victoria had an average 3,740,570 vehicles registered in 2006, up 297,997 vehicles (8.7%) on 2002. They travelled an estimated 54,698 million kilometres in 2006, or an average of 14,600 km per vehicle, compared to an average of 14,200km in 2002, and 13,400km in 1998. The largest vehicle class was passenger vehicles (3,021,479 vehicles), followed by light commercial (470,861), motor cycles (112,120), and rigid trucks (95,802); with 14,078 buses also registered.

The ability of the population to source services and employment is strongly influenced by access to transport. The number of motor vehicles

per household quantifies access to private transport. There are three major reasons for a different share of motor vehicles per household:

- the age structure of the population and household type, which influences the size of the household and the number of adults present;
- access to public transport; and
- household income, which can influence the amount of money available to purchase motor vehicles.

7.5% of households in Banyule do not have access to a motor vehicle which compares with Melbourne's average of 9.5% of households without a car. Over half (53%) of all Banyule households have access to 2 or more cars which compares to the MSD average of 49%.

However, there are suburbs of Banyule which are well below this standard of car ownership. The Heidelberg West/Bellfield area has 22% of households with no access to a vehicle. Additionally, this area is situated well away from the Hurstbridge railway line and the lack of private/public transport options curtails working/education/recreational options for some people in Heidelberg West. At the eastern side of the municipality and also away from the Hurstbridge rail line, just 3.6% of households in Lower Plenty do not have access to a motor vehicle.

Significant populations in Banyule are precluded from driving for financial, legal or medical reasons, age or by choice. For example, the number of children and teenagers under the age of 18 is 22.1%, the number of adults aged over 70 is 11.1% and people with a mobility disability is estimated at just over 20%. It is therefore important for Council to promote viable transport alternatives to cars.

3.0 Public Transport

Banyule is serviced by train, tram, bus and taxi services, all of which provide a mixture of local, inter suburban and city commuting and connection. In Australia, the urban public transport systems carry less than 10% of urban passenger trips. However, in the last 2 years, Melbourne's train and tram network is carrying more people than it has previously. There were 180.4 million journeys on the metropolitan train network in the 12 months to December 2007. Patronage has grown by 23 per cent in the past two financial years. Growth in passenger numbers is being driven by a number of factors including accelerated population growth, increased CBD employment and increased petrol costs. In line with this growth in passenger numbers, park and ride car parking facilities at all the major rail stations in Banyule are full by 7:30am to 8:00am, and many people are parking in nearby local streets, causing residential amenity issues.

Banyule is serviced by the Hurstbridge rail line which runs radially between Melbourne CBD and Hurstbridge. Banyule has 9 rail stations of which 5 are designated "suburban premium" stations (Ivanhoe,

Heidelberg, Macleod, Watsonia and Greensborough) and are staffed from first to last train. Approximately 14,140 dwellings within Banyule are located within 800 metres of a railway station which means that an estimated 39,400 people are within reasonable walking distance of a railway station. Journey times vary from the 19 minute express rail journey from Ivanhoe to the CBD, to the 42 minute stopping all stations rail journey from Montmorency to the CBD. (Reference: Banyule Public Transport; Pedestrian Access to Principle Public Transport Network in Banyule, Pedestrian Access to local bus network in Banyule)

Banyule is also currently served by six different bus companies. With the exception of Eaglemont, all rail stations in Banyule have at least one bus route connection. Of the 22 bus routes (not including school bus routes) servicing Banyule, 16 routes connect with rail stations. Of the largest rail stations, i.e. those designated as Premium Stations, Greensborough has seven bus route connections, Ivanhoe has four bus route connections, and Heidelberg and Watsonia have three bus connections each.

Tram Route 86 operates along Plenty Road on the western boundary of Banyule, providing direct public transport services from La Trobe University, RMIT Bundoora campus, and those suburbs abutting Plenty Road, to the Central Business District via High Street, Preston (connecting to the rail stations along the Epping Railway Line) and northern inner suburbs to the Central Business District.

Many people who are unable to use conventional public transport rely on community bus services provided by Council and other agencies. Demand for these services often outstrips supply and demographic changes predicting an increase in the older person age groups in Banyule show that this demand will grow in future years. There is an increasing demand for community transport and a need for options to be developed to address this demand, particularly in the Aged Services area.

Funding for community transport has shifted from provider funded to recipient funded, with local authorities having fewer funds to operate and maintain their existing vehicles, let alone, provide new services.

4.0 Cycling

There are 1.2 million bicycles throughout metropolitan Melbourne, one for every 2.5 people. Some 70,000 are used on any one day, making approximately 200,000 trips per day. Trip lengths are mostly less than 5 kilometres, with the main purposes being travel to work or school, shopping and recreation. In general, however, despite a high bicycle ownership rate, trips by bicycle account for only 2 to 3 per cent of all personal trips in major Australian cities.

Cycling is an important transport mode that has many benefits for the community. Cycling provides access and transportation to sections of the population that would otherwise not be able to travel, or travel as far, independently. Cycling extends the geographical range for trips usually made on foot and provides a low cost and healthy transport alternative,

for short to medium length trips usually made by motorised vehicles. Bicycles offer a cheap and healthy form of transport and they assist in reducing air pollution and greenhouse gases and traffic volumes. In recent years, the importance of seeking alternatives to the private vehicle has led to an increased recognition of cycling and walking as viable, healthy options. (Reference: Banyule's Bicycle Network)

The Eddington Inquiry Report – Investing in Transport – East West Link Needs Assessment (2008) notes that 12% of all trips in the CBD and inner suburbs during the weekday morning peak hours are by bicycle.

In the early 1990's, a Principal Bicycle Network (PBN) for metropolitan Melbourne was developed as part of the Victorian Bicycle Strategy, generally providing a network of priority bicycle routes on a maximum 1.5 kilometre grid. Banyule has 34.5 km of nominated on-road bicycle facilities and 36.2km of nominated off-road facilities within the Principal Bicycle Network of which approximately 10km of on-road and 21.8km of off-road have been completed. Whilst much has been achieved on the off-road trails within the City, with shared footways upgraded to accommodate cyclists, to date, little provision has made for cyclists within the on-road element of the Principal Bicycle Network in the municipality. The State Government's transport strategy "Meeting our Transport Challenges" has as an objective the completion of the PBN throughout Melbourne within the next decade, however, this is subject to available funding.

Banyule also has a number of local on-road bicycle lanes i.e. Oriel Road, McArthur Road which assist with the cycling task. With the advent of Activity Centres and the proposed increased concentration in commercial and residential development in these centres, the focus will be on resourcing bicycle access to Greensborough, Heidelberg and Ivanhoe.

5.0 Walking

Walking is often overlooked as a significant mode of travel. Walking can make a complete trip, but often it is the first and last part of a trip where most of the distance has been covered by motorised or public transport. It also takes a person from a car park to their ultimate destination. The majority of car trips have an essential walking component, for many people it is a significant part of their daily travel.

The amount of walking by individuals is decreasing. However policy developments are emphasising the importance of walking for transport, economic, health and environmental reasons. The idea of an area's "walkability" has moved forward in the last 2 to 3 years, with an emphasis on promoting the needs of pedestrians over motor vehicles, particularly in the Activity Centres; providing easily legible wayfaring signage to guide pedestrians; and incorporating pedestrian accessibility into road construction i.e. at roundabouts etc. (Reference: Pedestrian Access to Banyule's Neighbourhood Activity Centres, Pedestrian Access to Greensborough, Heidelberg and Ivanhoe Activity Centres, Pedestrian

Access to Principle Public Transport Network in Banyule, Pedestrian Access to local bus network in Banyule)

Currently in Banyule, just 2.5% of residents walk to work, however there is a growing number now using trains and buses, who walk the initial distance from their homes to their public transport destination. Walking School Buses are being actively promoted at primary schools throughout the municipality.

Walking can be promoted as an alternative mode of transport and the role of walking can be promoted so that drivers are encouraged to leave their cars at home for short journeys. Possible incentives to encourage such a change of mode include improved facilities for walking, footpaths on desire lines, improvement of pedestrian links and pedestrian safety, and better urban transport accessible on foot. There is also recognition that places where people congregate, such as shopping and business centres, could be adapted from 'car places' to 'people places'. At the core of such areas, priority can be given to pedestrians, with a sense of place created where people would like to visit because it would be safe, convenient and attractive. To encourage such pedestrian friendly environments, attention can be given to streetscape, public spaces and the siting and design of buildings. Accessibility can also be managed to give priority to public transport and pedestrians.

6.0 Factors influencing Transport Choice

Individual travel decisions are influenced by a range of economic, physical, social and psychological factors that are common to most countries. In Australia, the high level of car ownership, the sprawling nature of our capital cities and the policy emphasis on building road infrastructure capacity have all strongly favoured car use.

Car Ownership

Owning a motor vehicle often involves a large fixed investment. The need to get the most value out of this investment leads to a near exclusive use of the vehicle, even where other modes are more cost or energy efficient.

Perception of Modes

Car drivers perceive the car's characteristics – cost, travel time, convenience, comfort, ease of use – as being better than they are and judge alternative travel modes, particularly public transport as being worse. Walking is often seen as a viable transport mode but only for very short journeys. The lack of knowledge and experience of travel alternatives reinforces the inevitability of car use.

Price of different transport activities

Costs are rarely fairly perceived. The external costs of urban driving are high and increasing and include costs of road trauma, motor vehicle emissions, traffic congestion and are estimated to cost $4000 per car per year in major Australian cities.

Availability of public transport

Declining patronage and greater urban spread has led to a reduced investment in public transport, the sale of facilities and /or closure of lines and services. This has left many urban fringe areas and people with disabilities with few travel options other than the private car.

Safety

Despite the well-publicised number of deaths and injuries in road accidents, there is no evidence that the considerable risk of death or injury deters car usage. However, safety concerns principally related to the speed and volume of motorised traffic dominate decisions made on whether to cycle or walk. In particular, for cyclists, the fear of injury by having to compete for road space with vehicles is particularly important. Fear of attack at rail stations, and on trains is a major concern to users.

Travel Time and Convenience

A key advantage to car travel is the convenience it offers in terms of giving control over time and space. It provides independence and enables freedom of movement to any place. It is one of the main reasons provided by parents for taking their children to school by car (More than 60% of children in Melbourne travel to and from school by car and this figure is increasing on an annual basis.)

Convenience, and quick door to door travel are among the primary reasons given by cyclists for riding bicycles, together with fitness and environmental friendliness. Deterrents are weather conditions, limited carrying capacity, lack of cycle infrastructure, lack of end of trip facilities.

Availability of carparking

The availability of free, subsidised or cheap parking is a strong influence on the decision to use a car. Of note, is the number of special events organised, where no parking is provided with heavy promotion and usage of public transport i.e. grand prix, football games.

Transport and Health

Travel by private car has transformed the way in which land is used and people live. Use of private motorised transport is an integral part of a period of industrial and social change in the developed world that has brought higher living standards and longer life expectancies.

Car ownership and travel have brought considerable benefits but have also created new health and social problems. Increased car travel is linked with damage to human health through road accidents, air pollution, noise, declining levels of physical activity and fragmentation of neighbourhoods.

In Victoria, nearly 400 people are fatally injured on the roads each year, in addition to 6000 people hospitalised and about 17,000 with other injuries.

In Australia, motor vehicles are responsible for 40 to 90% of the various pollutants in the area and the largest source of human-made pollutant

emissions in urban airsheds. The high incidence of short vehicle trips in Australia (about 50% of vehicle trips are less than 5kms) worsens emission levels as most pollutants are emitted in the first 10 minutes of a journey.

7.0 Current issues associated with car dependency and lack of alternative transport choices.

There are many issues associated with car dependency and lack of alternative transport choices.

Traffic congestion is already becoming a problem in the Banyule. This affects community safety and liveability, the viability of local businesses and the general amenity of our streets and roads. Traffic congestion is particularly evident on our arterial/main road system – Greensborough Highway, Rosanna Road, Grimshaw Street, Bell Street - leading to many drivers leaving the main road system during the morning and evening peak hours and travelling on more local roads. This practice is commonly known as “rat-running” and Council receive many complaints from residents about excessive numbers of vehicles driving along residential streets at inappropriate speeds and creating unacceptable traffic noise in generally quiet streets.

Traffic congestion and stationary traffic also contribute significantly to the amenity of the local environment including air pollution and traffic noise. Pedestrians including workers and children using our Walking School Buses, and cyclists do not want to nor should have to walk/cycle to their destinations just a couple of metres away from bumper to bumper traffic. Vehicle exhausts containing toxic substances such as Sulphur Dioxide and Nitrogen Dioxide are increasing to troublesome levels. Particulate matter from vehicle exhausts are also indicated in coronary and lung conditions as well as some cancers. Medical studies have consistently shown that this pollution causes heart and lung diseases, especially in the developing foetus (as they are going through critical stages of development), children and the elderly. These diseases include asthma, bronchitis, heart attack and cancer. According to the CSIRO, Australia's air pollution death toll is now higher than fatalities from road accidents. Each year on average, 2400 deaths are linked to air quality and health issues - much more than the 1700 people who die on our roads. That's an average of one death every four hours, and this number increases if the long-term effects of air toxics that induce cancer are included.

Traffic congestion also plays a part in increasing business and economic costs as a result of freight traffic and commuters being delayed on the arterial road network. Delays to the bus and tram network as a result of morning and afternoon peak congestion tend to discourage commuters from switching to public transport.

Lack of public transport affects resident’s education, work, social and recreation choices. Although over 30% of Banyule residents live within 800 metres of a rail station, the majority of residents do not have the same access to public transport, particularly away from the main north-

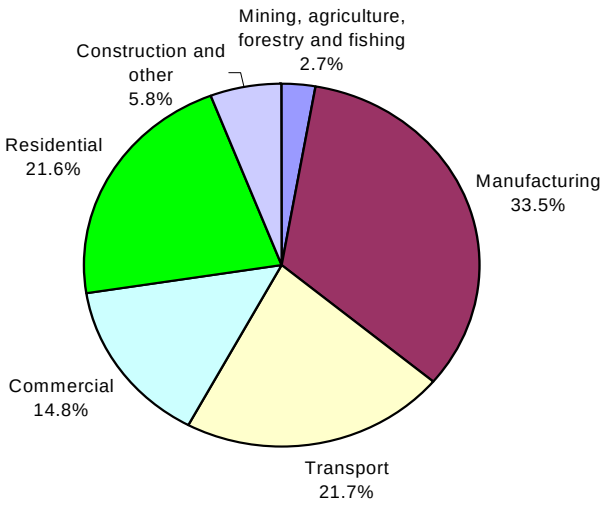
south spine of the Hurstbridge rail line. For residents of some areas such as West Heidelberg and Bellfield, who also have the lowest car ownership, this severely restricts the choices of many people, particularly those under 18 years of age, women and the elderly. This has an adverse mental and physical health effect for people living within the area. Similarly for residents is Banyule's outer north west and eastern suburbs, who also suffer from a lack of good bus services, reliance on the private car for most activities has led to many households needing 3 or more vehicles to access work and social activities. Banyule's Transport Maps show the extent of non-accessibility for those people not living close to main rail lines or major bus routes.

Reliance on the motor car also reduces the chances for incidental exercise and contributes to health and obesity issues, which have increased substantially in the last decade. Many parents of primary school age children are now recognising this as a major health issue and are starting up walking and cycling school buses to their local primary schools.

Many Banyule residents report that they do not use public transport because of there is no integration between the train, bus and tram timetables. While they are willing to take a train home from work in the CBD, they are not willing to wait up to 30 minutes for their connecting bus service to their home address due to the non-connectiveness of the various services. Public Transport Services and facilities also need to be perceived as "safe", particularly at night and at weekends in order to increase useage.

The transport sector is a significant contributor to Victoria's greenhouse gas emissions. According to the most recent inventory data for Victoria, the transport sector was responsible for more than 15% of Victoria's net greenhouse gas emissions and the second largest source of emissions produced through activities involving the use of energy, at 21.7%, as shown in Figure 1.

Figure 1. Share of energy emissions by end-use sector – Victoria



8.0 Future Issues over the next decade affecting transport choice

8.1 Activity Centres – concentration of housing and commercial development around activity centres

The State Government's blueprint "Melbourne 2030 proposed the creation of principal, major and neighbourhood activity centres. Activity Centres are destinations, where people meet, move, recreate, access services and do business. Regardless of the transport mode used to arrive or leave a centre, most, if able, will need to walk to their final destination. Higher density residential housing and commercial development, close to good public transport, business services, social and education opportunities will be situated in the proposed activity centres. Within the Activity Centres, residents and shoppers will be encouraged to use public transport and active transport (walking and cycling) options rather than the motorcar. Education and major investment in alternative sustainable transport options will be pursued over the next decade.

To facilitate this change in transport thinking, Banyule has adopted the idea of each Activity Centre having a Pedestrian Priority Precinct, where the needs of walking and active transport will have priority over motorised transport. A hierarchy of transport modes will support local economic growth by maximising people movement through streets in a pedestrian friendly environment to support a growing retail, office, and other business sectors that provide local jobs. This hierarchy is represented by the following.

Travel Mode	Priority
Pedestrians	Highest
Public Transport	
Bicycles	
Taxis	
Service Vehicles	
Private Vehicles	Lowest

Banyule's pedestrian access maps provide a good reference for activity centre pedestrian access.

8.2 Ageing Population

Banyule's population is ageing and will continue to age over the next decade. In the 5 years between the censii of 2001 and 2006, those people aged 65 years and over increased by 6%. An ageing population presents a unique set of transport needs and requirements. Many older people will still want to drive to access shopping, social and recreational activities, however, many older people may not be medically fit to drive or may want to try alternative modes of transport. They need all roads and footpaths to be easily accessed; trains/buses/trams and their associated facilities i.e. timetables, bus stops, bus shelters to be fully DDA compliant, for footpaths to be able to accommodate electric scooters, kerb ramps in place and more pedestrian phase time on pedestrian signals.

8.3 Peak Oil and Increased Petrol Prices

Victoria is recognised as having an economy that is heavily based on the availability of cheap and abundant oil. The only certain change is the price of this material as we come to the end of the largest oil fields' productive life. Behind the steep rise in petrol prices now hitting motorists and consumers is the phenomenon known as peak oil.

Peak oil is a well-established geological characteristic of oil production. Output from any oil or natural gas field at first increases, reaches a peak, and then declines. The peak typically occurs when 50 per cent of the field's oil or gas is produced. Adding up all known fields and probable future discoveries, industry experts have shown that global output will peak at some time in the next decade before declining by at least 2 per cent a year. At the same time, world demand is steadily increasing, bringing ruthless international competition for dwindling supplies.

This crisis will affect every aspect of social life and the economy. There will be no easy solutions because state and federal governments have so far refused to acknowledge the reality of peak oil or take any serious steps to prepare for it. Much-hyped substitutes for oil, such as hydrogen, ethanol or shale oil are inherently expensive and require infrastructure that would take decades to build.

Peak oil makes the provision of public transport infrastructure (especially rail and modern light rail) to all parts of our city an absolute priority. The

age of abundant and cheap petrol is drawing to a close. The effects of expensive petrol will be most felt by those living in the outer north, west and eastern suburbs of Banyule, which could lead to marginalisation of these areas. Travelling to education, work, social and recreational choices will become more expensive and reduce household budgets, leading to reducing other activities to make up the financial burden. Increased demand for walking, cycling and public transport will have to resourced with appropriate infrastructure and facilities.

8.4 Increasing Traffic Congestion

Traffic Congestion is predicted to increase substantially over the next two decades. Although, many people are switching to walking, cycling and using public transport, by 2031, the actual number of transport trips in Melbourne will grow from 13.5 million trips a day to nearly 19 million trips/day, of which nearly 14 million trips will be by car. This represents a 40% increase in car traffic over the next 23 years. This additional volume of traffic will need to be accommodated on our road network, resulting in longer spread out peak hours, increased air pollution, increased "rat-running" through residential streets and a greater sense of reduce health and lifechoice. The Eddington Inquiry Report notes that some form of congestion-targeted road charging is inevitable in Melbourne, although this may be a decade or more away. Without some form of road user charging, there will come a point in Melbourne's future where congestion levels can only be reduced by the unpalatable combination of lower levels of population and economic growth.

Well-targeted road pricing schemes can deliver very significant benefits, including reductions in congestion levels, reductions in travel times, increases in public transport use and environmental benefits. However, such schemes can also leave some people worse-off, such as those who cannot be flexible with their travel times, those who have no or few alternative travel options and those who cannot afford to pay the charges.

8.5 Constraints on economic development and jobs growth

Without an efficient, reliable, fully connected transport network, Melbourne's shift towards a knowledge-based services economy will be undermined. The failure to provide the transport connections people need to move around Banyule and Melbourne will have negative consequences for maintaining strong business and jobs growth, as residents become tired of congested roads and overcrowded public transport.

8.6 Banyule car parking policy and strategy

Banyule is developing a car parking policy and strategy for its activity centres which will redefine the provision and management of car parking in these centres. As noted above, active transport and public transport will strive to become the main transport options of residents and visitors to all activity centres. Consequently, car parking will become more limited, particularly long stay parking close to activity centres. Over the next decade, there will need to be more investment in alternatives to the

private car to enable activity centres to become more pedestrian focussed. This will be reflected in more resources into bicycle, public transport and walking infrastructure.