



ISSUES PAPER INTEGRATED LAND-USE AND TRANSPORT STRATEGY FOR HORNSBY SHIRE



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In March 2002, Hornsby Council commissioned PBAI Australia to develop an Integrated Land Use and Transport Strategy (ILUTS) to fulfil one of its key strategy initiatives to create a living environment.

The decision by Council to develop an Integrated Land Use and Transport Strategy for the Shire as part of its Management Plan was a timely and holistic approach aimed at developing appropriate strategies that would promote public transport as a viable and realistic travel mode particularly for work trips. By advocating the promotion of increased public transport usage, it was envisaged that there would be a reduction in the rate of increase in private car travel for commuter trips. It was also anticipated that development of an Integrated Land Use and Transport Strategy for the Shire would build on or enhance a number of Council policies and initiatives that existed at the time which included the 'Local Agenda 21' program (now Sustainable Action Committee), Hornsby Shire Housing Strategy and Council's Sustainable Management System.

A Draft Study Report of the Shire's Integrated Land Use and Transport Strategy was completed and submitted to Council in November 2004 and reported to Council at the Ordinary Meeting held in October 2005. The ILUTS recommended a number of Action Plans that should be considered for implementation. The Action Plans identified include:

- Administration;
- Land Use and Development;
- Travel Demand Management;
- Public Transport;
- Arterial Roads;
- Local Street Management;
- Walking and Cycling;
- Access to National Parks and Open Space.

The actions are consistent with the broad sustainability principles that Council has progressively developed in recent years.

It is proposed that Council agree to consider principles developed in the ILUTS when determining future actions relating to transport and land use in Hornsby.

1. BACKGROUND

In 2002 Council engaged a consultant to undertake an Integrated Land Use and Transport Study (ILUTS) for the Shire. The scope of the study was to develop an integrated transport plan which addresses the Shire's current and planned transport system with the objective of relieving traffic pressure on the road network.

The traditional approach of addressing the problem of increasing traffic congestion has been to satisfy demand by providing more road capacity and parking spaces. This approach is considered unsustainable and it is now evident that it is no longer feasible to accommodate the growing demand of motor vehicles. Having regard to the above, Council considered that a more holistic approach to addressing traffic problems and congestion in the Shire required integrating land use and transport planning.

Integrating land use and transport is about advocating and developing sustainable transport choices for people, i.e. whether it is to save money on petrol, to get into shape/fit by walking and cycling to other destinations or to have a more relaxed commute. By advocating the promotion of increased public transport usage, it is envisaged that there would be a reduction in the rate of increase in private car travel for commuter trips. It is also anticipated that development of an Integrated Land Use and Transport Strategy for the Shire will build on or enhance a number of current Council policies and initiatives which included the 'Local Agenda 21' program (now Sustainability Action Committee) Hornsby Shire Housing Strategy and Council's Sustainable Management System.

Specifically, the ILUTS was commissioned to achieve the following:

1. Develop and advocate smart travel techniques that give people the freedom to choose how to get around;
2. Develop a series of action plans consistent with the identified integrated land use and transport strategies that would form a program for more detailed studies, investigations and projects;
3. Define a range of indicators to assist Council in monitoring the implementation and effectiveness of the Strategy (i.e. ILUTS);
4. Recommend an Implementation Program outlining a clear means of progressing the Strategy; including priorities, responsibilities and potential funding opportunities.

The Integrated Land Use and Transport Study framework also included the development of a parking strategy and transport model for the Shire.

The aim of a parking management strategy for the Shire is to balance the supply of and demand for parking spaces with the objective of minimising additional traffic generation through restraining car use, while ensuring that the economic viability of each centre is maintained.

The transport model was required to provide a strategic transport planning tool to assist Council in:

- Assessing the effects of changing existing zoning controls;
- Providing quantitative data to support S94 Plans that require developer contributions towards improved road and public transport services;
- Providing strategic data to more detailed local area models that Council may wish to use for further investigations.

2. JOURNEY TO WORK AND CAR OWNERSHIP PATTERNS

2.1 Journey to Work

Journey to work mode share for the Hornsby LGA and the Sydney Metropolitan Area is shown in **Appendix 1**. This data shows that 54% of people in Hornsby drive to work compared to 53.1% across the metropolitan area.

Notwithstanding the availability of a good rail connecting service to the Sydney CBD, the ILUTS established that the car is still the predominant mode of travel in Hornsby Shire. More than 70% of all travel in Hornsby Shire is undertaken by car. This may be attributed to the fact that other possible options are not safe, practical or even possible.

Public transport use in the Shire is heavily influenced by the rail corridors and to a lesser extent the bus network. There is a strong correlation between relatively high public transport mode share (greater than 20%) and the rail corridor, particularly from Waitara to Mount Colah. Pockets of high public transport use are around railway stations in particular Normanhurst, Thornleigh, Pennant Hills, Epping and Berowra. While bus use, walking and cycling are relatively low, train use is higher among Hornsby residents possibly because there are two railway lines (North Shore Line and the main northern line via Strathfield) that terminate in Hornsby Town Centre.

There is a moderate use of walking and cycling (non-motorised) mode (that is over 4% combined) in the Hornsby/Waitara/Asquith area and in pockets associated with the Northern Line and Pennant Hills Road. It is likely walking and cycling is influenced by the presence of commercial land uses in these localities.

The patterns of journey to work mode share within Hornsby LGA are presented in Figure 1 – 4 of **Appendix 2**.

2.2 Vehicle Ownership

About 92% of households in the Shire have one or more cars. Households with low car ownership ratios are generally located in the corridor served by the rail lines.

Households around Hornsby Town Centre and Waitara extending south to Normanhurst have an average of 0.5 – 1.0 vehicle. Another notable area with particularly low car ownership is the Castle Hill retirement village.

The proportion of households without a car in Hornsby LGA is shown in **Appendix 3**. The average number of vehicles per households in the Shire is illustrated in Figure 1 – 4 of **Appendix 4**.

3. STUDY OUTCOME AND RECOMMENDED ACTION PLANS

A Draft Study Report of the Shire's Integrated Land Use and Transport Strategy was completed and submitted to Council in November 2004 and reported to Council at the Ordinary Meeting held in October 2005.

The ILUTS recommended a number of Action Plans that should be considered for implementation. The actions plans identified include:

3.1 Travel Demand Management (TDM)

Travel Demand Management is about managing the unrestrained demand for car travel by encouraging greater use of public transport, walking and cycling, more efficient use of vehicles and reducing the actual need to make trips. Traffic Demand Management initiatives allow us to choose travel alternatives that work such as:

- Pedestrian and Cycling Facility Enhancements;
- Car Sharing Programs;
- Parking Management and Park & Ride;
- Transit Incentives and Bus-only lanes;
- Fare Subsidisation and Fare Purchasing Options;
- Road Policy and Vehicle Restrictions;
- Alternative Work Hours;
- Telecommuting; and
- Urban Growth Management

3.2 Public Transport

Public transport is a key part of the ILUTS but there are considerable issues surrounding the current provision of services and the expansion of them in the future.

The recommended Public Transport Action Plan seeks to develop a range of related projects to support and promote public transport services within the Shire. Council will need to work closely with the public transport operators and State Government in implementing this action plan, recognising that a partnership is required to effect improvements. Due to the organisation of public transport infrastructure and service provision, this action plan takes a broad approach based on:

- Definition of public transport service criteria;
- Public transport facilities audit;
- Lobbying and liaison;
- Corridor based projects;
- Service based projects; and,
- 'Spot' improvements.

The improvement of facilities will need financing. Council may be able to source funds from State Government, specifically through the interchange program funded through the Parking Space Levy and also from the private sector (section 94 contributions and developer agreements). As some of the identified projects in the ILUTS for the Shire are relatively innovative, it is possible Council could look towards State Government for partnership funding to develop pilot programs and projects.

3.3 Car Parking Management

Car parking management is important to a number of the action plans and the approach to car parking will be important to the overall implementation and realisation of the Strategy. The car parking management action plan was completed as a separate document early in the study in response to Council's requirement for policy direction in this area at an early stage. It was developed to meet the following general policy principles:

- There should not be any increase in parking provision in most centres unless it is associated with new development;
- Commuter parking should not be expanded except where demand substantially exceeds off-street supply and on-street parking is detrimental to the safety and environmental amenity of the local community and all other alternatives;
- Consideration should be given to the parking needs of those who drive to railway stations after the morning peak period;
- Pay parking could be introduced as a means of managing the use of existing provision;
- Any reduction of long term parking spaces must be considered in conjunction with adequate alternative transport access (e.g. local bus service improvements; Parramatta and North West Rail Links, bicycle links and storage facilities);
- Any apparent parking shortage should be reviewed with an objective to increase effective utilisation of existing spaces (e.g. by converting all day parking spaces for short term use);
- Effective enforcement is a priority (this is effectively carried out by Council since transfer of enforcement responsibility from the Police);
- Encourage shared use of off-street parking spaces at major centres where night time activities are promoted;
- Where applicable, Council should encourage reduced parking provisions for employee parking in major business developments

3.4 Walking and Cycling

Walking and cycling have a valuable role to play in an integrated land use and transport system. Walking is particularly accessible to a large proportion of the community and has minimal environmental impacts and positive social benefits. Much work needs to be completed to provide a pleasant cycling environment and encourage people to make journeys on their bikes.

In order to promote walking and cycling as part of the Shire's Integrated Land Use and Transport Strategy, the following five principal areas of implementation should be considered:

- Develop formal strategy – Council has developed PAMPs and a Bike Plan for the Shire and there is a need to bring these together in a coordinated document that can be communicated across Council departments. The development of a cohesive strategy will require some Council attention, however given the work done to date; this should not be an onerous task. The strategy should not be a long document, ensuring it is easy to disseminate through Council.
- Publicity/promotion – Given the importance of walking and cycling to younger age groups, publicity and promotion through schools linked to the travel demand management action plan is recommended. Walking and cycling can be promoted through a range of media incorporating practical information on routes and safe riding or walking to addressing motivational factors such as improved health and fitness.

- Education - Both children and adults will generally benefit from specialist education particularly related to cycling. Courses for beginners and 'lapsed cyclists' can provide the necessary road skills and improve confidence. Local bicycle user groups often offer cycle 'buddy' assistance. Buddies can assist cyclists in identifying safe routes, for example, between home and work, and accompanying the new cyclist a few times to give them confidence. Council can promote and support this type of scheme. Cycle and walk maps are particularly useful to local people as they look to make trips by these modes.
- Integrating pedestrian and cycling planning priorities into all Council activities. Planning for pedestrians and cyclists should not be undertaken in isolation from other Council activities. A holistic approach should be adopted that permeates all aspects of Council's work.
- Links and connections between existing facilities - A considerable effort has already been made by Council to implement pedestrian and cycle facilities throughout the Shire, including dedicated paths, however, the network lacks connectivity and facilities are frequently isolated. These existing facilities could be made of much greater relevance through a focus on providing links and connections between existing infrastructures. Additional connections and linkages should be identified through the Hornsby Shire Bike Plan and completed PAMPs and prioritised. The network can then be publicised through maps and community information.
- Provision of new facilities - New facilities will be required and these will largely be identified within the Hornsby Shire Bike Plan and the PAMPs, particularly those recently completed for Pennant Hills and Cherrybrook. Additional PAMPs for other areas may need to be completed and all PAMPs and the Bicycle Plan will require regular review. New facilities will include on and off road paths and trails; crossing facilities (signalised and unsignalised); cycle parking facilities and signage. Unfortunately the severe topography in parts of the Shire makes infrastructure provision relatively expensive.

3.5 Arterial Roads

Pennant Hills Road experiences high traffic levels as it currently provides the most direct connection between the F3 and the M2. These high levels of through traffic, including a large number of goods vehicles, compromise safety and local amenity. The implementation of a direct link between the F3 and the M2 may offer additional options for consideration.

The objectives of this action plan will be difficult for Council to realise and it is dependent on the input and cooperation of the RTA.

The following is recommended:

- Identify and adopt Shire wide infrastructure priorities;
- Lobby RTA, State Government agencies and Commonwealth Government regarding implementation of the F3 to M2 Link;
- Instigate regular liaison meetings with RTA representatives to progress required improvements.

The Arterial Roads Action Plan requires a low resource commitment from Council with lobbying and liaison tasks generally falling within existing staff responsibilities.

3.6 Local Street Management

This action plan seeks to increase the liveability of local residential neighbourhoods, reducing the negative impacts of traffic and creating areas that are conducive to walking and cycling. The general principles of the action plan are considered to be:

- Revisit street design to reduce traffic speeds and dominance;
- Provide for improved access on foot and by bicycle;
- Create community areas (pocket parks, playgrounds); and,
- Reinforce community characteristics through urban design features.

The suggested approach includes the following steps:

- Identify neighbourhood areas and revise road hierarchy plans if necessary;
- Assess traffic problems of residential neighbourhoods;
- Identify transport and access issues of local communities;
- Develop solutions and detailed design proposals to address identified problems.

Council will necessarily take the lead in the implementation of this action plan and the principal stakeholders will be community groups and organisations. The early stages of the action plan implementation – the identification of neighbourhood areas – will be relatively low cost; however, design and implementation of measures will require a greater level of resources.

3.7 Land Use and Development

A major component of the Land Use and Development Action Plan will be for Council to formally adopt the ILUTS and its overriding principles and objectives.

Directing future urban growth towards locations which would best satisfy ILUTS objectives requires Council to consider and weight the significance of each criteria. For example, the weighting of ILUTS principles, such as higher densities, mixed uses, accessibility and structured development needs to be considered against other criteria such as community aspirations, and conservation and environmental outcomes.

Many of the ILUTS principles are currently addressed in the planning of centres and Council already has a number of place-based planning controls or DCP's such as Hornsby Town Centre DCP, Pennant Hills Commercial Centre DCP, Epping Commercial Centre Master plan and Westleigh Local Environmental Study and Master plan. While broad scale changes are not necessarily envisaged or required, a review of the consistency of existing policies against the ILUTS objectives should be undertaken on a rolling program consistent with envisaged and already adopted programs for review.

3.8 Access to the National Park and other Areas of Open Space

Hornsby Shire includes large areas of National Park and other bushland that attracts visitors from the local, metropolitan and wider regional area. At present access to these areas is dominated by the private car. Consideration needs to be given to improving and promoting access by other modes to ensure the future sustainability of these areas.

The suggested approach focuses on:

- Increasing awareness of existing public transport routes and opportunities for visiting national parks and areas of open space using existing paths and trails;
- developing public transport links to support existing facilities or developing facilities that can be accessed through existing public transport services;

This action plan can be initiated with relatively limited resources but will require greater resources to realise the medium and long term opportunities. This action plan should be funded in partnership with Stakeholders, particularly National Parks and Wildlife Service (NPWS) and the transport operators. It is likely Council will have to take a lead in realising the action plan through the organisation of meetings, development of proposals and conduct of local research.

3.9 Administration

The realisation of the ILUTS through the effective implementation of the projects identified through the action plans is the responsibility of Hornsby Council. This responsibility must be recognised and embraced from the outset at all levels of Council. Councillor and senior management commitment to the aims and objectives of the ILUTS is particularly important and will be significant in developing proactive working relationships with stakeholders.

Implementation of the ILUTS actions is dependent on the management and administration structures in place and the political will to achieve change. Many of the actions will require Council to work closely with other stakeholders including public transport operators and State Government.

4. ILUTS TRANSPORT MODEL

The ILUTS Model was developed and completed in accordance with Study Terms of Reference. The transport model was updated to reflect current traffic conditions in the Shire and surrounding regions. The model was recently used to assess the traffic impacts of the current proposed Housing Strategy.

5. IMPLICATIONS OF THE ILUTS

The administration of the ILUTS should largely be accommodated within existing Council resources.

To assist implementation, the full list of facilities will need to be assessed and priorities in line with available budget resources set out clearly. This will require the recommendations of various Action Plans to be brought together into a single implementation framework, with coordinated spending priorities.

The Action Plan relating to Walking and Cycling will require potentially significant resources to realise; however, the more costly items will have already been identified within other documents, in particular, the Hornsby Shire Bike Plan and the PAMPs. The publicity and promotion of walking and cycling will require some resource allocation but this can and should be done in conjunction with the travel demand management action plan. It should also be recognised that the responsibility for planning and delivery of the integrated land use and transport initiatives will inevitably be spread across Council departments and external stakeholders.

In view that Council already has existing policies and Management Plan in place, the ILUTS needs to recognise Council's existing position. Some existing policies may conflict with the principal aims and objectives of the ILUTS and these will need to be resolved without compromising each other objectives.

6. WAY FORWARD

It is proposed that Council agree to consider overriding principles/objectives of the ILUTS when determining future actions relating to land use and transport in Hornsby Shire.

While broad scale changes are not necessarily envisaged or required, a review of the consistency of existing land use and transport planning policies including car parking management practices against the ILUTS objectives should be undertaken on an ongoing basis.

The review of controls such as parking that apply to town and village centres could proceed subject to the availability of resources and existing work programs.

APPENDICES

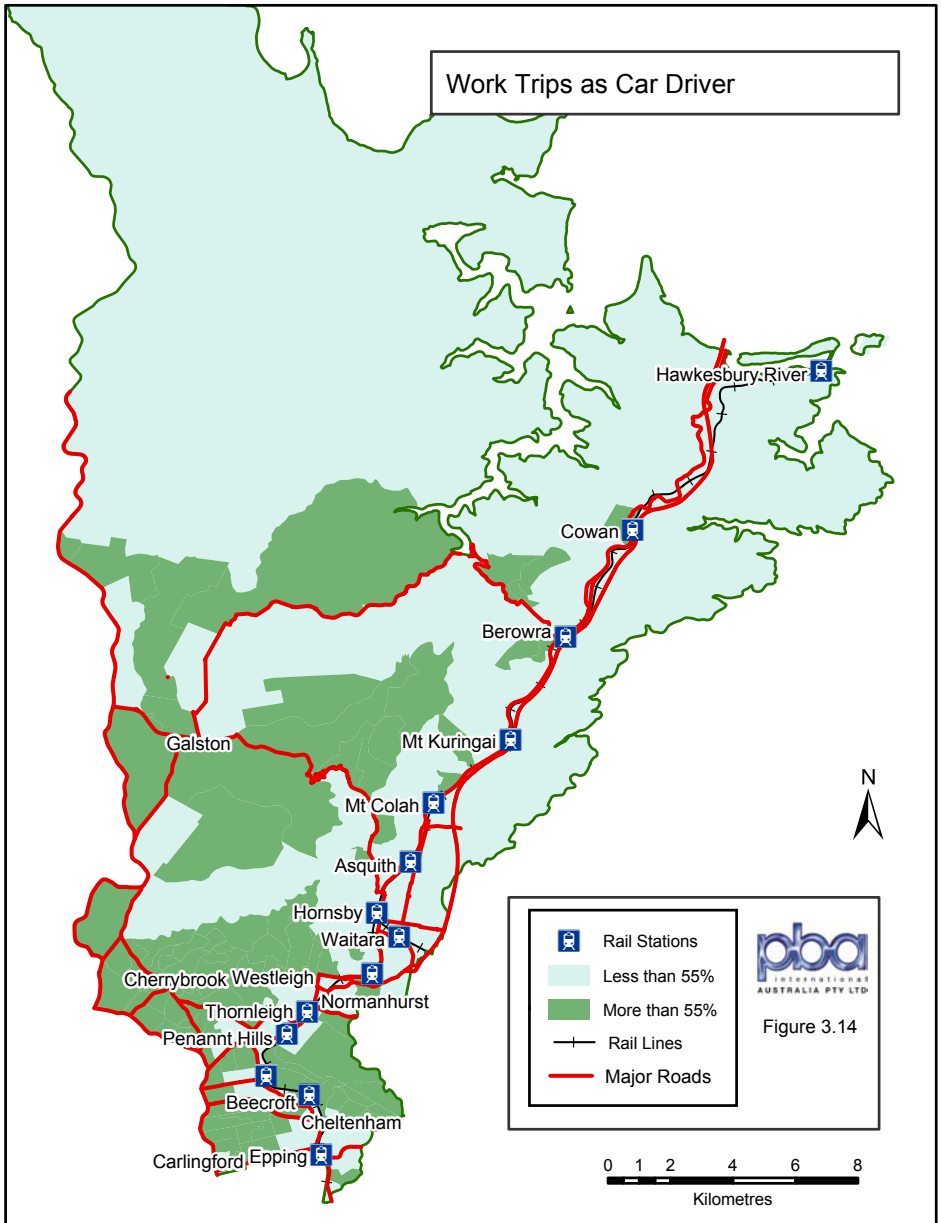
APPENDIX 1

JOURNEY TO WORK MODE SHARE

MODE	HORNSBY LGA		SYDNEY METROPOLITAN AREA	
	TOTAL TRIPS	% OF TOTAL TRIPS	TOTAL TRIPS	% OF TOTAL TRIPS
One Method only:				
Train	7,319	10.9	127,908	7.6
Bus	614	0.9	78,901	4.7
Ferry/Train	18	0.0	4,825	0.3
Taxi	103	0.2	7,548	0.5
Car, as driver	36,230	54.0	890,138	53.1
Car, as passenger	3,278	4.9	106,044	6.3
Motor bike/motor scooter	269	0.4	7,590	0.5
Bicycle	179	0.3	8,193	0.5
Other	544	0.8	18,620	1.1
Walked only	1,541	2.3	62,815	3.7
Total	50,095	74.6	1,312,582	78.3
Two Methods:				
Train and other	4,302	6.4	76,456	4.6
Bus and other (excluding train)	110	0.2	7,955	0.5
Other two methods	333	0.5	8,829	0.5
Total	4,745	7.1	93,240	5.6
Three Methods:				
Train and other	419	0.6	8,706	0.5
Bus and other (excluding train)	7	0.0	612	0.0
Other three methods	19	0.0	372	0.0
Total	445	0.7	9,690	0.6
Worked at home	3,588	5.3	66,342	4.0
Did not go to work	7,366	11.0	165,518	9.9
Not Stated	881	1.3	28,089	1.7
TOTAL	67,120	100.0	1,675,461	100.0

Source: Australian Bureau of Statistics 2001 Census of Population and Housing

APPENDIX 2 (Figure 1)



APPENDIX 2 (Figure 2)

Work Trips as Car Passenger

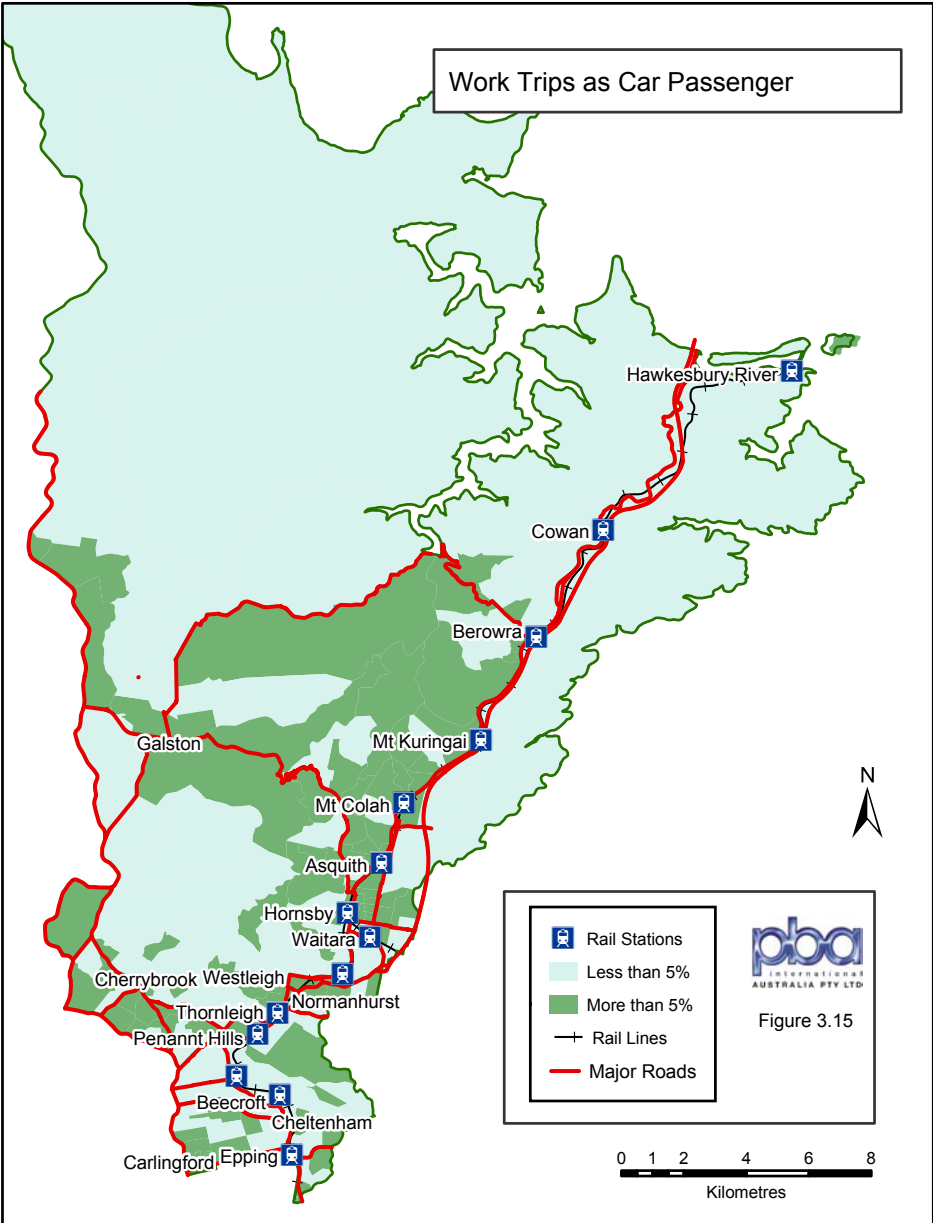
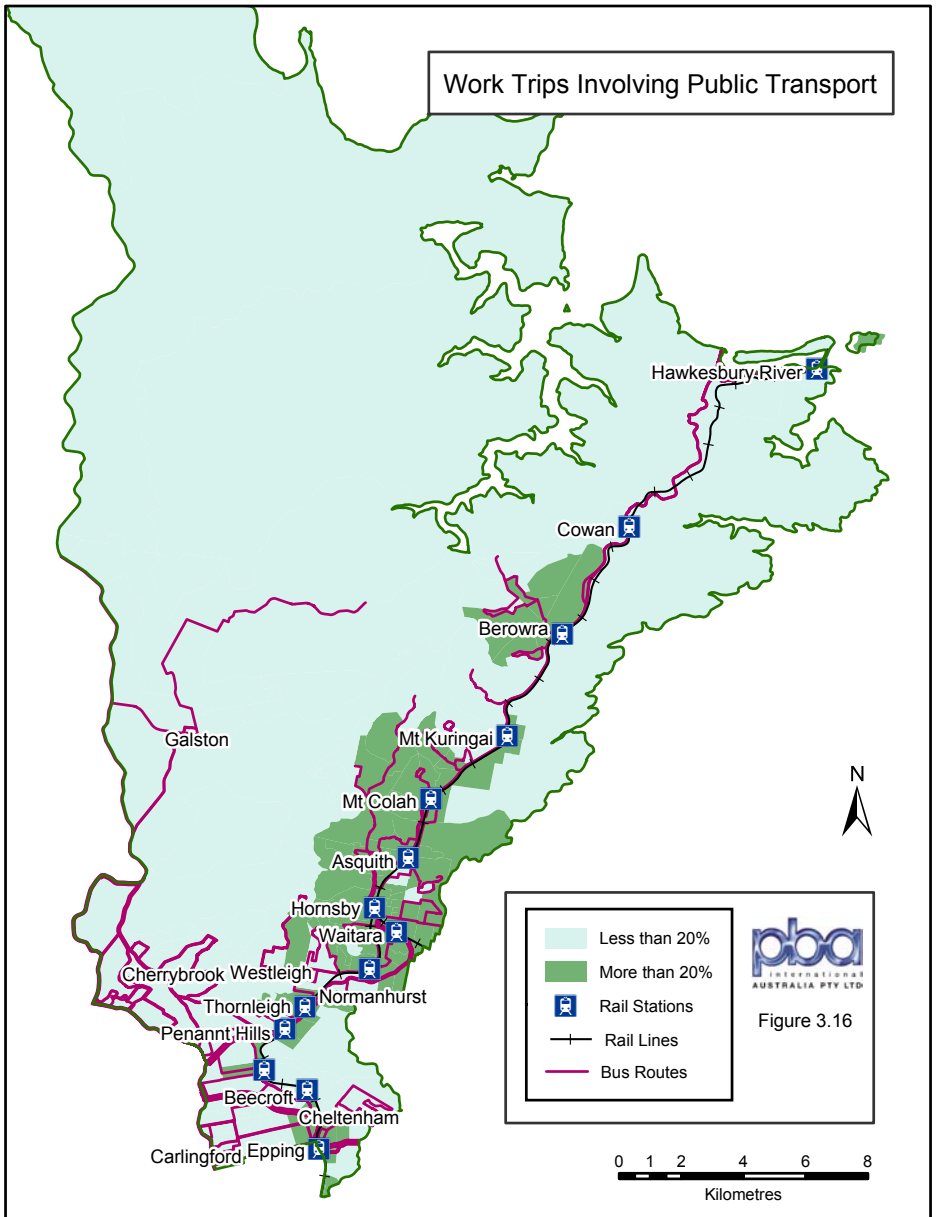
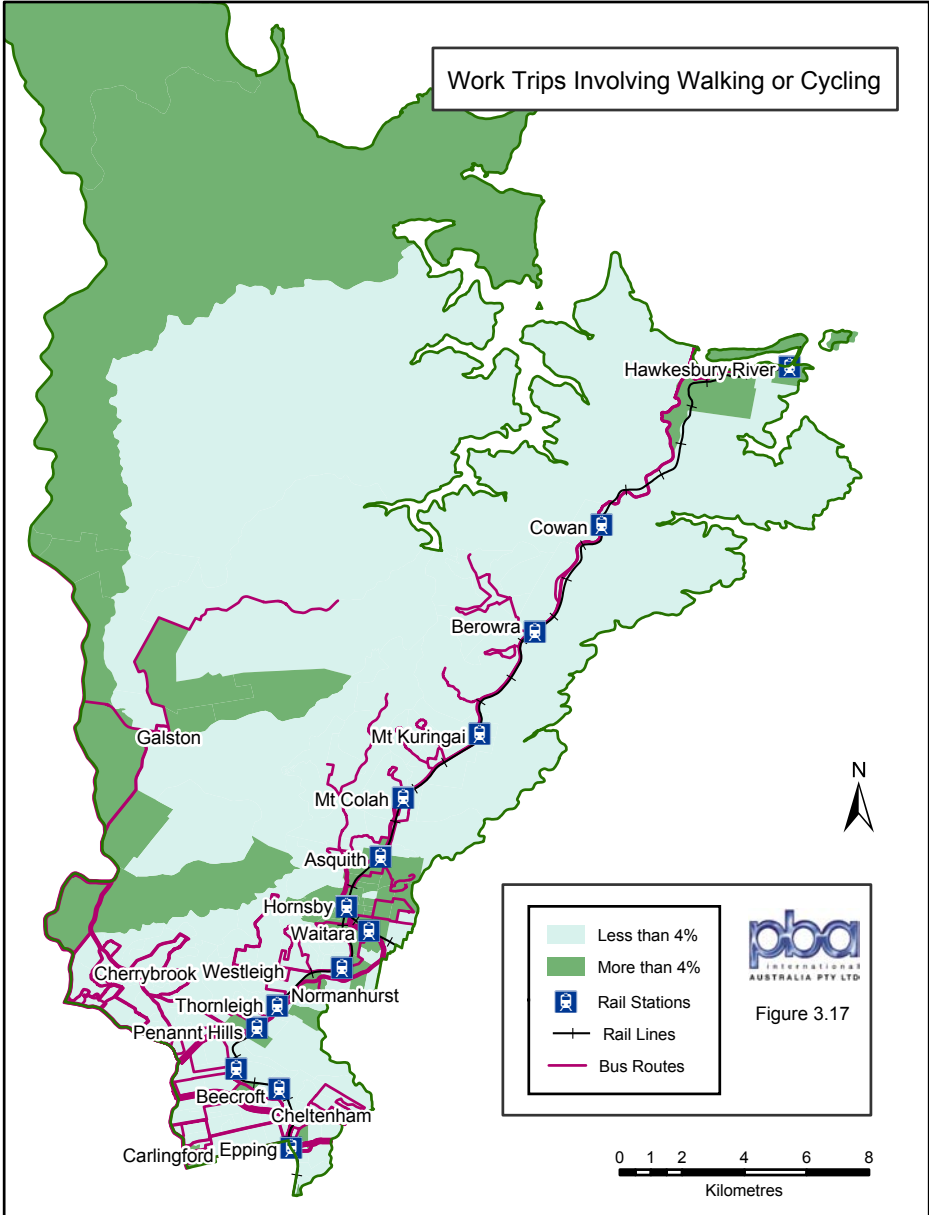


Figure 3.15

APPENDIX 2 (Figure 3)



APPENDIX 2 (Figure 4)

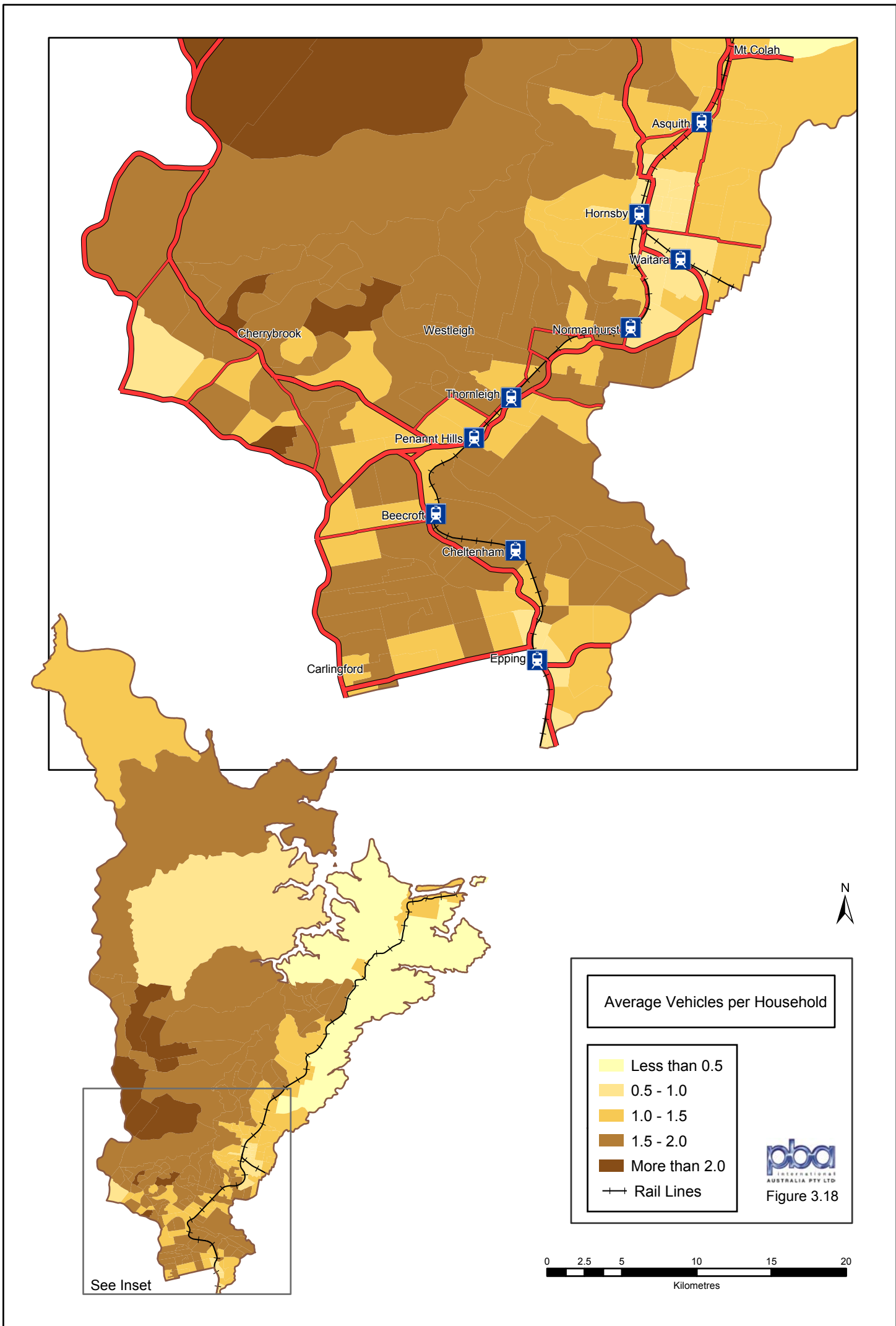


APPENDIX 3

HOUSEHOLDS WITHOUT A CAR

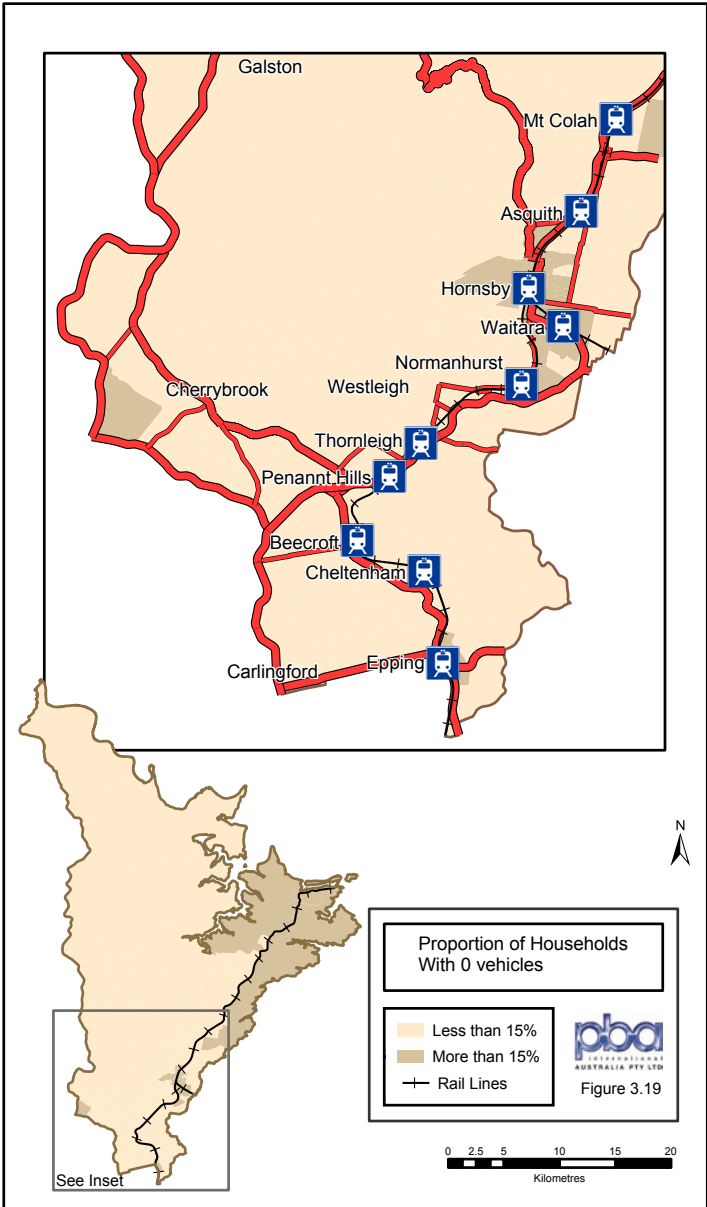
HOUSEHOLDS WITHOUT A CAR	2001		
	NUMBER	TOTAL HOUSEHOLDS	PERCENT (%)
Arcadia/North Western Rural	16	1,196	1.3
Asquith	102	1,034	9.9
Beecroft/Cheltenham	115	3,388	3.4
Berowra	46	1,169	3.9
Berowra Heights/North Eastern Rural	147	2,552	5.8
Carlingford	54	1,031	5.2
Castle Hill	317	1,594	19.9
Cherrybrook	145	5,499	2.6
Dural	29	1,646	1.8
Epping	495	4,821	10.3
North Epping	68	1,425	4.8
Galston/Middle Dural	35	1,022	3.5
Hornsby	1,171	7,184	16.3
Hornsby Heights	49	1,980	2.5
Mount Colah/Mount Kuring-gai	132	2,857	4.6
Normanhurst	150	1,647	9.1
Pennant Hills	150	2,129	7.1
Thornleigh	153	2,579	5.9
Wahroonga/Waitara	330	2,325	14.2
Westleigh	13	1,315	1
West Pennant Hills	63	1,316	4.8
Northern Sydney Region Organisation of Councils	20,062	187,882	10.7
Sydney Statistical Division	187,858	1,438,394	13.1
Hornsby Shire	3,798	49,688	7.6

Source: Australian Bureau of Statistics 2001 Census of Population and Housing



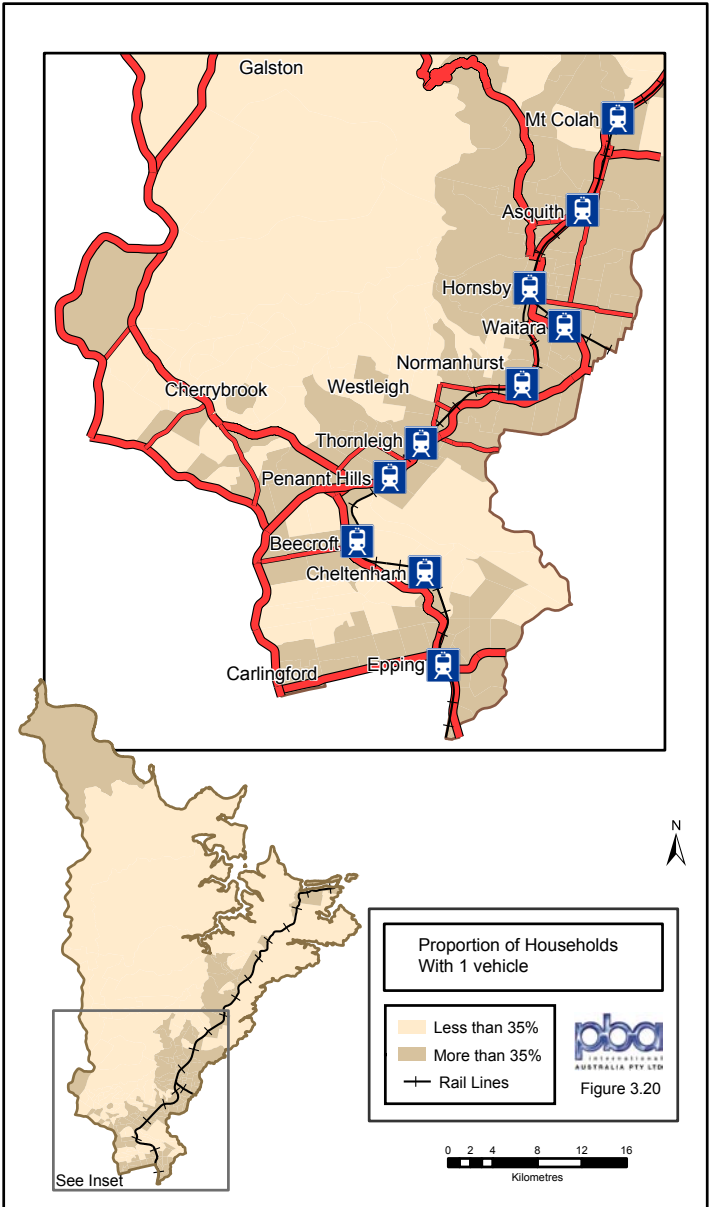
APPENDIX 4 (Figure 2)

0 Vehicles per Household



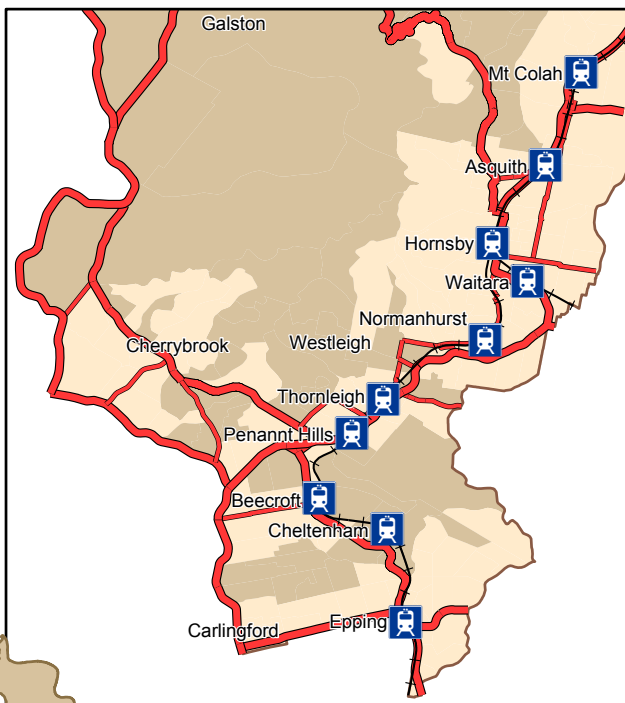
APPENDIX 4 (Figure 3)

1 Vehicle per Household



APPENDIX 4 (Figure 4)

3 or More Vehicles per Household



Proportion of Households
With More Than 3 vehicles

Less than 15%

More than 15%

— Rail Lines



Figure 3.21

