4.1 Introduction

An effective and efficient transport system is critical to the environmental, social, economic and cultural wellbeing of the Auckland Region and its inhabitants. This is achieved by providing a high level of accessibility to the regions residents to enable them to fully participate in society and to enable the movement of goods and services in a manner which supports the continued economic development of the region.

Transport infrastructure represents a significant physical resource in the Region which requires careful management. The influence of the transport system on urban form and the environment is of considerable importance to the Auckland Region.

The form of development of Auckland and the pattern of activities in the Region has been profoundly influenced by transport systems. Initially water transport movement focused on coastal waters and the Region's harbours. Next rail and roads, and then the tram system developed, enabling longer trips to work and some dispersal of shopping to suburban areas. More recently, the system of arterial roads and motorways evolved, contributing to the development of a sprawling, low-density city. Most people enjoy high levels of accessibility and mobility, and appreciate the opportunities and quality of life that this provides. They do not however, always appreciate the environmental costs associated with this high level of accessibility.

As explained in Chapter 2, the adverse effects on the environment from a sprawling low density form of development are unsustainable. Greater sustainability is to be achieved by locating the majority of future regional growth within the existing metropolitan area by way of a series of High Density Centres and Intensive Corridors. Overseas experience has shown that the implementation of rapid transit, in the form of heavy rail, ferry services, light rail or dedicated busway can assist in leveraging development within High Density Centres and Intensive Corridors. Many of the centres contained in Schedule 1 would benefit from the provision of improved rapid transit.

Population, employment and economic activity in Auckland have increased steadily, resulting in more trips being made. The number of vehicle trips made per person has also increased, accentuating the increase in total trips. The increase in use of vehicles reflects changes in commercial distribution systems, individuals becoming involved in more activities, more single purpose trips and replacement of walk and cycle trips by vehicle trips. The increase is placing greater pressure on the transport system and highlighting its adverse effects on the environment, including reduced environmental health, increased consumption of non-renewable resources, community disruption, and the decreased health and safety of people and communities.

There is increasing recognition that the Region's transport system needs to be developed in a more sustainable manner. Sustainable development in this sense also includes providing for the social and economic well-being of people and communities over time, along with environmental sustainability.

A more sustainable transport system is one in which trip numbers and lengths are minimised, and the use of energy and space-efficient modes of transport, such as public transport, cycling and walking, are viable and encouraged. The development of a transport system which supports a more compact form of development in the Auckland Region would work towards minimising adverse environmental effects, meeting accessibility needs and improving safety, reducing community disruption and contributing to the increased liveability of local communities and centres.

The major direction of transport policy in Auckland will be set by the RPS. The components of that policy are more fully developed through the Regional Land Transport Strategy (RLTS) which has been prepared pursuant to section 175 of the Land Transport Act 1998 and which provides a further mechanism for delivering sustainable transport outcomes. The RLTS must contribute to the overall aim of achieving an integrated, safe, responsive and sustainable land transport system.

The RLTS is also required to:

(i) identify the future land transport outcomes sought for the Region;

(ii) identify an appropriate role for each mode of transport;

(iii) include a travel demand management strategy.

The Land Transport Act 1998 requires that the RLTS must not be inconsistent with the RPS. The RLTS takes effect through a requirement that any project included in the Land Transport Programmes of the region must be aligned with the RLTS. The National Land Transport Programme prepared by Land Transport New Zealand

must have regard to the RLTS. The Auckland Regional Transport Authority (ARTA) is required to give effect to the RLTS.

At the same time, efforts need to be made to diminish or mitigate the transport effects of the dispersed residential patterns developed in recent decades. Thoughtful development of the rapid transit and passenger transport networks can improve access throughout the region's urban areas by more sustainable means, linking High Density Centres with attractive and effective passenger services.

4.2 Issues

4.2.1 The transport system can influence and be influenced by urban and rural form in both positive and negative ways.

Chapter 2 discusses how the form of urban and rural development affects the environment and outlines how through increased selective intensification and limited urban expansion, urban and rural development can be managed more sustainably in the Auckland region.

The transport system is recognised as being one of the major determinants of urban form. The way in which the transport system is developed is therefore one of the major instruments in guiding the form of urban development. If not managed properly, the transport system can promote land uses which do not support the land use outcomes sought in Chapter 2. This can include promoting peripheral low density urban developments which has related adverse environmental impacts.

On the other hand if managed properly the transport system can provide strong leverage for promoting land use outcomes sought in Chapter 2. This involves the management of public transport systems, walking, cycling, rail and roading improvements which promote and support the development of higher density urban centres and Corridors, which in turn attracts more people, more activity and more investment into these areas.

As the region grows the transport network will be required to increase in capacity to service this growth. Roading, public transport, walking and cycling networks will all come under pressure from future growth, particularly those parts of the network in and around the High Density Centres and Intensive Corridors identified in Schedule 1.

Inappropriate land uses can also have an adverse effect on the effective and efficient operation of the transport system. Some of the adverse effects from the transport system can be avoided, remedied or mitigated by the appropriate location of other urban land use activities in proximity to key transport corridors and/or by requiring appropriate subdivision and building development controls.

The sequencing of landuse intensification/expansion without promoting transport choice, and the effective and efficient provision of public transport, can result in issues of reduced accessibility for some members of the Regional community, and reliance on trips by private motor vehicles. The encouragement of modal choice, and reducing trip numbers and trip lengths, primarily through intensifying Compact Mixed Use Environments at High Density Centres and Intensive Corridors is consistent with the strategic objectives in Chapter 2. However, the existing settlement patterns, land uses, and reliance on private motor vehicles, provides challenges for promoting modal choice in the short to medium term. Consequently, the road network and use of the private motor vehicle will need to continue to be factored into evolving development patterns recognising the promotion of modal choices, including cycling, walking, public transport as well as the use of the private motor vehicle. The policies which manage the integration of transport and land use development are described in Chapter 2 and 4. Consequently, the objectives, policies and methods in this chapter must be considered within that wider context.

4.2.2 The transport system has adverse effects on the environment.

As well as the effects the transport system has on the environment through its contribution to urban form, transport has a direct impact on the environment. Motor vehicles are the largest contributor to air pollution in the Auckland metropolitan area and vehicle emissions are important contributors to greenhouse gases. The effect of emissions deposited on roads or stripped by rainfall, together with road surface accumulation from vehicle use (tyre wear, oil leaks, etc.), is that runoff from roads is an important source of water quality degradation.

In addition, the earthworks required to construct transport facilities generate dust and water-borne sediments.

The regional transport system is a relatively high user of energy and for the foreseeable future will rely on the consumption of non-renewable resources, including fossil fuels, construction materials and land. A failure to address energy issues which have a direct bearing on urban form, such as the efficient and effective supply of fuel to Auckland, will have serious environmental (including social and economic) consequences. These include inhibiting the operation of the transport system, an increase in the volume of heavy traffic on the roads and, consequently, a constraint on successful economic development. In order to mitigate environmental effects and meet Kyoto Protocol commitments the use of renewable energy resources should be investigated at a local, regional, and national level.

In the case of water transport, the design and operation of vessels, notably their speed, can cause coastal erosion due to vessel wakes. Such erosion has potential to adversely impact seawalls, beaches and other coastal features.

The transport system impacts both positively and negatively on existing communities. Roads, motorways and rail can have localised effects on people and communities, including noise, reduced safety and the severance of communities. These effects can be mitigated by design and through appropriate traffic management. However, the transport system can also bring people and communities together and enable them to provide for their social, economic and cultural wellbeing by decreasing either the distance or time it takes to travel around the region.

4.2.3 The domination of the transport system by cars inhibits the ability of some parts of the community to provide for their social, economic and cultural wellbeing.

The personal mobility provided by the car has played a large part in the development of a low-density city spread over a large area. People expect to have ready access to jobs, beaches, parks and social activities. This lifestyle is highly valued by the people of the Region. This form of development, however, with dispersed activities and high availability of cars, means that public transport is difficult to provide in a cost-effective manner. This reduces travel choices and opportunities for those who prefer to travel by public transport and, in particular, affects those without access to a private car who are dependent on public transport to meet their working, educational, health, recreational and social needs.

The predominant use of private vehicles has also resulted in the allocation of the majority of road space to the private vehicle at the expense of other modes such as public transport walking and cycling. The road space is a scarce resource for the carrying capacity of other modes of transport and its use needs to be optimised. Associated car parking and vehicle access ways have also been provided at the expense of other urban activities including public open spaces. This in turn has further hindered the ability to provide for effective alternative travel modes.

It is acknowledged however that, for the foreseeable future, a majority of people in the community will continue to use motor vehicles. It is necessary that provision continues to be made for the use of private motor vehicles.

4.2.4 The transport system is a significant regional resource providing for the movement of people, goods, services and resources. The existence of deficiencies in the transport network and landuse mix leads to poor access between some parts of the Region and congestion in parts of the transport network, inhibiting the ability of the community to provide for its social, economic and cultural wellbeing.

Successful economic development relies on a coherent, affordable, efficient and effective transport system and an appropriate spatial mix of employment land to improve the flow of people, goods and services both within the region, to other regions and to and from other parts of the world. Future major road links will still form an important part of the transport system, connecting cities and districts of the region, for 'cross town' or inter-regional movement, and for the movement of freight. Such road links and the use of motor vehicles, will remain an important part of the transport system for the movement of people particularly where they cannot, for the foreseeable future, reasonably be moved by public transport and for whom walking or cycling are not realistic alternatives.

A healthy economy is vital to the future of Auckland and this requires safe and efficient transport links across the network and in particular between important activity areas. The major activity areas include the Auckland Central Business District, the ports of Auckland and Onehunga, Auckland International Airport, the major production and servicing areas, the main employment

areas, some regionally significant infrastructure, residential areas, larger educational institutions, town centres, and major health care centres. In addition, access to metropolitan facilities and services from the surrounding rural areas is essential. Good transport links to other regions and other countries are also necessary.

Ports and airports play a vital part in fulfilling the latter role and it is important that land uses surrounding them do not compromise their effectiveness. Development of transport networks (e.g. rail) associated with the ports and airports provides opportunities to take freight traffic off the existing transport network (e.g. sea-borne freight). Ports and airports are primarily dealt with in Chapter 2 Policy 2.6.14 – Infrastructure. The Port is identified as regionally significant infrastructure and that work is not repeated in this chapter.

The increase in the number of vehicle trips in the Region has outstripped the ability of the road system to accommodate those trips, with the result that in some time periods and on some key parts of the road network, traffic congestion is a significant problem. In locations where roads are currently congested (including central parts of the motorway system, the harbour bridge and northern motorway, the southern motorway, the north western motorway and some key central arterials), traffic demand is expected to continue to increase, yet in many cases there is no realistic prospect of significantly increasing roading capacity.

In this situation, congestion and delays will continue to increase. As congestion builds, travel at peak periods is likely to be discouraged and people will search for alternative routes or travel modes to reach their destination. People may also choose to change their travel times, or change the places where they live, work, shop or carry out business and social activities.

4.2.5 The transport system has a high cost in terms of fatalities and injuries and this inhibits the ability of people and communities to provide for their health and safety.

The health and safety record of the Auckland transport system is poor by both national and international standards and this needs to be improved.

In 2005, 74 people were killed in road crashes in the Auckland Region and 3946 people were reported injured in road crashes. Motor vehicle crashes are the leading cause of hospitalisation for injury.

The cost of all reported motor vehicle crashes (fatal, injury and non-injury) to the Auckland Region in 2005 is estimated at $792 million. This includes health costs, property damage, legal costs and a costing for loss of life/permanent disability.

In addition it is estimated that almost 250 people in the region die every year from exposure to microscopic particles from vehicle emissions. This is a serious issue which requires ongoing action.

The predominant use of the transport system by cars has also resulted in a reduction in the use of the "active modes" of walking and cycling, through a combination of poorer facilities and a perception of decreased safety and security. The increased use of walking and cycling as modes of travel contributes to improved physical fitness and reduced health problems such as obesity and heart disease.

4.3 Objectives

1. *To develop a transport network that supports a compact sustainable urban form.*

The policies which give effect to this Objective are found in Chapter 2 (2.6.11).

2. *To avoid, remedy, or mitigate the adverse effects of transport on the environment and, in particular:*
   - *(i) to avoid, remedy, or mitigate the adverse effects of transport on air quality, water quality and heritage;*
   - *(ii) to reduce the need for the transport system to use non-renewable fuels;*
   - *(iii) to avoid, remedy, or mitigate the adverse effects of the transport system on community well-being and amenity.*
3. *To develop a transport network which provides an acceptable level of accessibility for all sections of the community within and across the region, by encouraging transport choices that are efficient, convenient or practical.*
4. *To develop a transport network which is as safe as is practicable and which promotes better physical health for the community.*

4.4 Policies, Methods and reasons

4.4.1 Policy

The following policy and methods give effect to Objective 4.3.2.

1. ***Land use and transport planning will be integrated in a way which:***

   (i) seeks to reduce trip lengths and numbers and the need for private vehicle travel and encourages a significant increase in the amount of travel made by public transport, walking and cycling;

   (ii) recognises that where access cannot yet be met conveniently, efficiently, effectively or practically by public transport, nor by viable walking or cycling, trips will continue to be made by private vehicle;

   (iii) recognises the need to reinforce an efficient and effective public transport system within and connecting High Density Centres and Intensive Corridors.

2. ***Development of the transport system will be guided in a way which:***

   (i) promotes the use of forms of transport which have fewer adverse effects on the environment;

   (ii) reduces the environmental effects of transport at source;

   (iii) reduces the need to use non-renewable fuels;

   (iv) avoids, remedies, or mitigates the adverse effects of transport on air and water quality;

   (v) avoids, remedies, or mitigates the adverse effects of transport in the modification of landscape and the destruction of natural habitats and other heritage;

   (vi) avoids, remedies, or mitigates the adverse effects of transport on local communities.

See also Chapter 2 – Regional Overview and Strategic Direction; Chapter 3 - Iwi; Chapter 5 - Energy; Chapter 6 - Heritage; Chapter 9 - Water Quality; Chapter 11 - Air Quality.

4.4.2 Methods

1. ***Land use and transport planning should be integrated by:***

   (i) District plan provisions which address the interaction between land use and the transport system and, in particular, should contain provisions concerning:

   (a) control of existing and future land use to enable new developments or redevelopments to be serviced efficiently by public transport, walking and cycling;

   (b) ensuring that planning controls do not unnecessarily restrict the development of High Density Centres, and Intensive Corridors serviced by public transport, working from home or telecommuting;

   (c) encouragement of land use changes so that persons can work and obtain goods and services within local areas, so as to significantly reduce the need to travel by motor vehicle;

   (ii) the Auckland RLTS should recognise the impact which transport has on land use and should guide development of the transport system in a way which is compatible with land use planning.

2. ***The Auckland RLTS and district plans will contain provisions which recognise the advantages of modes of transport which have fewer adverse environmental effects than trucks or single occupant cars, such as public transport (including buses, passenger rail and ferries) high occupancy vehicles, cycling, walking and rail freight.***

3. ***The ARC will take a strong advocacy and educational role in support of the reduction of motor vehicle use and the encouragement of fuel efficient modes.***

4. ***The ARC will continue to take a strong advocacy role for the reduction of emissions and noise from individual vehicles, for reducing the use of non-renewable fuels and for better fuel quality.***

5. ***The ARC will continue to undertake, in a way which complements the actions of other organisations, an educational campaign directed towards promotion of the awareness of the consequences of motor vehicle emissions, promotion of regular tuning and maintenance of motor vehicles, the promotion of more efficient vehicles and promotion of the use of alternative fuels.***

6. ***The ARC will develop, implement, monitor and review an Auckland Regional Air Quality Management Strategy to ensure that air quality in areas impacted by vehicle emissions is in compliance with relevant National Environmental Standards and Regional Air Quality Targets.***

7. ***The ARC will manage sediment discharge from road construction and stormwater discharges from roads via regional plan rules and will also address the adverse effects of stormwater discharges from roads through a Stormwater Quality Control Programme.***

8. ***The Auckland RLTS and district plans will contain provisions which avoid, remedy and mitigate the adverse impacts of traffic and the transport network on local communities including addressing the need for good urban design.***

9. ***The ARC in consultation with EECA will develop targets for energy efficiency improvements from transport in the Auckland Region and support initiatives for achieving this target.***

10. ***The Auckland RLTS and district plans will contain provisions that enable high traffic generating activities to establish in appropriate locations particularly in High Density Centres and along Intensive Corridors; whilst ensuring, particularly for Intensive Corridors, that matters associated with any transport effects of the activity do not compromise the efficiency of the transport system nor its supporting infrastructure.***

See also Chapter 2 – Regional Overview and Strategic Direction; Chapter 9 - Water Quality; Chapter 11 - Air Quality; Chapter 6 - Energy

4.4.3 Reasons

Private motor vehicle use is currently the preferred or only realistic means of travel for the majority of the Region's community. This significant reliance on the private motor vehicle is likely to continue in the short to medium term where public transport, walking or cycling are not realistic alternatives.

Many of the adverse environmental effects of transport (particularly emissions and polluted runoff from roads) are related to the amount of vehicle travel. Reducing the amount of vehicle travel, the level of discharges from vehicles, and proactive mitigation measures for treating the discharges, all assist in reducing the adverse effects.

Improvements to the regional transport network in both rural areas and in existing urban areas can have impacts on the local communities who live there. One of the major impacts from increased traffic or new road or public transport infrastructure is the severance effect on existing communities.

Where there are alternative means of providing for transport demand, environmental objectives can be achieved by giving preference to transport alternatives with lower environmental effects. The environmental effects which the ARC will seek to reduce include:

i) air pollution

ii) water pollution

iii) CO_2 emissions

iv) damage to heritage

v) noise

vi) transport accidents

vii) community severance.

Public transport, high occupancy vehicles, cycling, walking and rail freight generally perform better than single occupancy cars and trucks regarding these effects. Within the range of public transport options, light rail has benefits over buses for the southern, eastern and western corridors. Steps are being taken to ensure the protection of these routes for rail and the higher levels of rail service are being introduced. The feasibility and likely effects of economic instruments, such as road pricing and parking charges, are being investigated. These measures may help travellers understand the full cost of use of each mode of transport. They can then make informed decisions about which mode to use.

Along with road pricing and parking charges are a number of other techniques which seek to increase the use of more sustainable transport modes and reduce the use of single occupancy car travel. These techniques are more commonly known as Travel Demand Management (TDM). TDM includes mechanisms such as aligning land use activities with transport investment, mixed use developments, travel plans for schools, universities, business and communities and improving the level of transport information available. TDM mechanisms in Auckland are designed to work in tandem with improvements made to public transport, walking and cycling modes.

The most effective means of reducing motor vehicle emissions is through measures aimed at the whole vehicle fleet. Such measures include further improvement of fuel and vehicle standards, changing tax incidence, regulation, efficiency labelling etc. Many of these initiates can only effectively be tackled with central government cooperation.

Similarly, reducing the need to use non-renewable fuel will require central government to introduce regulations or tax measures to reduce the amount of fuel used and to encourage the use of renewable fuels.

Continued policy supporting the use of low polluting fuels will assist in reducing the adverse environmental effects of the transport system.

Reducing the adverse effects of the transport system on water quality and air quality will require:

(i) encouragement of the efficient use of fuel and thus reduction in the amount of vehicle emissions;

(ii) reducing motor vehicle use;

(iii) giving effect to voluntary and educational programmes to reduce emissions 'at the tailpipe' under a range of operating conditions in order to limit adverse effects on air quality.

(iv) treating stormwater discharges from roads to limit the adverse effects on the quality of receiving waters;

(v) developing and implementing consistent procedures for the assessment of environmental effects from transport projects;

(vi) ensuring that appropriate environmental mitigation techniques are implemented for transport projects, where adverse effects cannot be avoided or remedied;

(vii) developing and implementing monitoring programs for new transport projects to track impacts of changing transport characteristics on air, water and noise;

(viii) influencing land use to ensure more people can live and work locally.

These measures may have cost implications which may affect the rate at which they can be implemented.

Measures for addressing localised environmental impacts include where appropriate:

(i) introduction of traffic calming measures;

(ii) noise reduction measures;

(iii) introduction of Heavy Motor Vehicle routes;

(iv) introduction of tunnelled routes;

(v) introduction of routes for the transport of hazardous substances.

4.4.4 Policy

The following policies and method give effect to Objective 4.3.3.

The public transport system will be integrated and managed to better enable existing and potential users to get to work, services, shops, educational, health, social and recreational facilities through:

(i) improving the public transport system;

(ii) improving walking opportunities and facilities;

(iii) improving cycling opportunities and facilities.

4.4.5 Method

The transport system will be integrated and managed in the following ways via the following Auckland planning documents:

(i) the policies and methods of the Auckland RLTS and the land transport programmes of transport providers of the region will provide for improvements to the transport system;

(ii) the Auckland RLTS and the Auckland Regional Passenger Transport Plan (prepared pursuant to the Transport Services Licensing Act 1989) will include policies and methods to improve the effectiveness of the public transport system;

(iii) the RLTS will include policies and methods to improve the attractiveness of walking and cycling.

4.4.6 Reasons

In providing a range of transport options transport users are able to make considered choices to meet their transport needs. This includes the ability to choose to travel by private vehicle, public transport, cycle, walk, and even to choose not to travel at all e.g. in the case of working from home. To make these choices viable improvements need to be made to all parts of the transport network. It needs to be recognised however that public transport options are not available in all locations, particularly rural and coastal settlements.

In order to better provide for people's accessibility needs and to encourage the reduction of vehicle trips, the public transport system needs to become more attractive to users and wider use needs to be promoted. The public transport system needs to enable existing and potential users to get to work, services, shops and social and recreational facilities and it needs to provide a good door to door service considering and incorporating the walking component which is an integral part of all public

transport trips. The attractiveness of public transport will be improved through measures such as:

(i) the redevelopment of Auckland commuter rail system, ferry system and the construction of the bus rapid transit system;

(ii) integration between different transport modes;

(iii) development of services which meet the needs of existing and potential users in terms of coverage, reliability, timetables, frequency and integration of timetables, ticketing and fares;

(iv) where practicable introducing measures such as bus priorities which will enhance the speed of services;

(v) improving the pedestrian element of the public transport trip;

(vi) accommodating people with special transport needs (such as people with disabilities);

(vii) ensuring public transport is competitively priced and affordable to those who are unable to operate, or who cannot afford, a car;

(viii) upgrading transfer facilities within and between transport modes;

(ix) ensuring service information is readily available and easy to use;

(x) ensuring vehicles and facilities provide reasonable levels of comfort and security.

The directions in which the public transport system will be developed are outlined in the Auckland RLTS and described in some detail in the Passenger Transport Plan.

Walking and cycling choices also need to enable a number of existing and potential users to get to work, services, shops and recreational facilities. The attractiveness of walking and cycling will be improved through:

(i) developing a regional cycle network;

(ii) upgrading and developing new pedestrian linkages including improved linkages to the public transport network;

(iii) where practicable introducing measures such as pedestrian priority precincts;

(iv) meeting the urban design policies in Section 2.6.8.

4.4.7 Policies

The following policies and methods give effect to Objective 4.3.4.

1. ***Transport networks which promote the efficient movement of people, goods and services throughout the Region will be identified in the Auckland RLTS and district plans and will be required to be protected in district plans.***

2. ***The efficiency of congested transport Corridors will be increased by:***

   (i) encouraging increases in person-carrying capacity (i.e., by supporting public transport, car pooling and high occupancy vehicles);

   (ii) encouraging increases in freight carrying capacity (i.e., by supporting consolidation of loads and rail freight); and

   (iii) encouraging walking and cycling.

3. ***Roading upgrades that accommodate more road vehicles should be used where:***

   (i) congested transport Corridors are no longer able to be effectively managed by Policy 4.4.7.2;

   (ii) the social, cultural, economic and environmental benefits outweigh investment in alternative transport infrastructure or services.

4. ***The efficiency of congested transport corridors will be increased by encouraging shorter trips and recreational trips to be made by walking and cycling.***

4.4.8 Methods

1. ***The Auckland RLTS will identify the major elements of the existing transport system in the form of the regional components of the transport network hierarchy and will also identify the additional regional components of the transport network hierarchy which will be required in the ten year period following the production of each RLTS. The RLTS will also identify any components which are likely to be required in the longer term.***

2. ***District plans shall include a functional road hierarchy and shall provide for the protection of the regional land transport network as, either existing or required.***

3. ***The Auckland RLTS will contain policies and methods for increasing the person-carrying and freight-carrying capacity of the key Corridors.***
4. ***The ARC will maintain dialogue with central government to ensure that a fair allocation of transport funding is made available to the Auckland region to enable the region to provide an integrated, safe, responsive and sustainable transport system.***

4.4.9 Reasons

Ensuring appropriate transport links are available between major activity centres will involve identification of the parts of the transport network (both road and rail) essential for moving goods and services within and in and out of the Region. Processes which will ensure that this network can carry out this function will need to be introduced. Determination of the need for inclusion of particular transport links in the Regional transport network, either currently or in the future, will include consideration of the following matters:

- transport proposals which have not yet been implemented;
- areas where recent developments have meant that increased travel demand (or likely increased future demand) is not well catered for;
- areas where improved transport links are needed to assist development.

In congested transport corridors where roading capacity cannot be significantly increased, efforts will be mainly directed at reducing the increase in demand for vehicle travel. This will be achieved by increasing efficiency of use of vehicles - by increasing the ratio of persons per vehicle rather than by increasing the number of vehicles and by encouraging the use of walking and cycling. It is acknowledged that this requires modal choice to be available to reduce trips by private motor vehicle. Support for high occupancy vehicles including public transport will be important in this regard.

Similarly, attention needs to be given to reducing the need for heavy motor vehicle travel, through measures such as consolidation of loads and encouragement of rail freight where appropriate.

In recent years high-speed ferries have emerged as an increasingly important mode of commuter and tourist transport on the Waitemata Harbour and Hauraki Gulf. Water transport should be encouraged to play a significant alternative role in linking the city centre to Auckland's marine suburbs.

The feasibility and likely effects of pricing mechanisms, such as electronic road pricing, cordon tolls, supplementary licensing/area pricing and parking levies, to manage traffic demand in congested areas and Corridors need to be investigated.

Additional funding has been secured to enable the region to develop and run an improved transport system. It is important that the region ensures that a fair allocation of funding continues into the future.

4.4.10 Policies

The following policies and methods give effect to Objective 4.3.5.

1. ***Co-operation and information sharing between road and rail safety groups will be actively encouraged.***
2. ***Priority areas will be identified for the targeting of road safety resources.***
3. ***Co-operation and information sharing between health and transport groups will be actively encouraged.***
4. ***Take all reasonable steps to avoid, remedy or mitigate the adverse health effects of transport.***
5. ***Ensure the use of personal safety and security measures in the management and development of the transport networks.***

4.4.11 Methods

1. ***The ARC will convene a working group of representatives of the major parties involved in road safety in the Region with the purpose of improving co-operation and information sharing among road safety organisations (the RoadSafe Auckland Working Group currently fulfils this role).***
2. ***A strategy will be produced and reviewed at regular intervals identifying road safety issues in the Auckland Region and targeting priority areas for the allocation of resources (the Auckland Road Safety Action Plan 2004 to 2010 currently fulfils this role).***
3. ***A strategy will be reviewed at regular intervals identifying road safety issues in the Auckland region and targeting priority.***

4. ***Coordination of rail safety initiatives through support of any national rail safety plan and/or the consideration and development of a Regional Rail Safety Plan.***

5. ***The Auckland RLTS will contain policies and methods which address the human health effects of the transport system.***

6. ***In consultation with TAs, develop a series of measures for the transport system to address personal safety and security.***

4.4.12 Reasons

The Road Safety to 2010 Strategy, published by the Minister of Transport in October 2003, maintains regional councils road safety planning, co-ordinating, monitoring, reporting roles. These functions are being undertaken through the RoadSafe Auckland Working Group, made up of representatives from the Regional Council, each city and district council, the Accident Compensation Corporation, Ministry of Health, Land Transport New Zealand, Transit New Zealand, NZ Police, Safekids and the Auckland Regional Public Health Services.

There is a need to provide guidance for the effective allocation of resources in the road safety area. The RoadSafe Auckland Working Group has prepared the Auckland Regional Road Safety plan 2004 to 2010 which identifies the particular road safety issues in Auckland and the priority measures for dealing with these. The current plan targets:

(i) visible safety management and increased safety engineering investment;

(ii) high levels of enforcement of drink driving, speed and intersection rules;

(iii) improved pedestrian safety and initiatives targeted to the needs of at risk road users.

Transport can affect human health in a number of ways, both directly and indirectly and both beneficially as well as harmfully. The New Zealand Health Strategy 2002 identifies a number of goals and objectives which are related to the transport system. These include a healthy social environment, a healthy physical environment, healthy lifestyles and better physical health.

Better transport safety, the promotion of more active modes, reduced vehicle emissions and improved accessibility are all ways in which the transport system can avoid, remedy or mitigate the adverse effect the transport system can have on community health.

Real and perceived threats to personal security and safety can affect the willingness of individuals to use alternative modes of transport, such as walking, cycling and public transport. The development of measures to address personal security and safety, such as Crime Prevention through Environmental Design (CPTED), can increase use of alternative transport modes.

4.5 Environmental Results Anticipated

The policies are intended to produce a transport system which:

(a) is less reliant on non-renewable energy sources and requires less land to function effectively;

(b) reduces adverse impacts on air quality (including greenhouse gases) and water quality and heritage;

(c) minimises community disruption;

(d) provides an acceptable level of access to work, services, shops and social and recreational facilities for all groups in the community, including those without access to a car;

(e) ensures the regionally significant parts of the transport network are able to function effectively and efficiently;

(f) improves the effectiveness of the public transport system;

(g) improves the effectiveness of walking and cycling modes;

(h) is as safe as practicable and which promotes a healthier community.

4.6 Monitoring

The policies are intended to produce a transport system which:

(a) Increases the number of people moved through key corridors, and impacts on goods movement;

(b) Improves accessibility to and between growth centres in peak and interpeak periods by car, public transport, cycling and walking;

(c) Significantly increases the level of fixed rapid transit services to and between growth centres.;

(d) Provides transport infrastructure investment which assists in leveraging further higher density development within high density/growth centres making these centres more attractive places in which to live, work and play;

(e) Enhances the regional economies competitiveness and efficiency while maintaining and enhancing the natural environment qualities of the region.

4.7 Monitoring

The annual monitoring report prepared by the ARC under Section 182 of the Land Transport Act 1998 with respect to the Auckland Regional Land Transport Strategy will be the main means of monitoring implementation of this Chapter. The RLTS annual report is produced in October each year by the Regional Land Transport Committee.