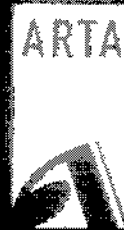




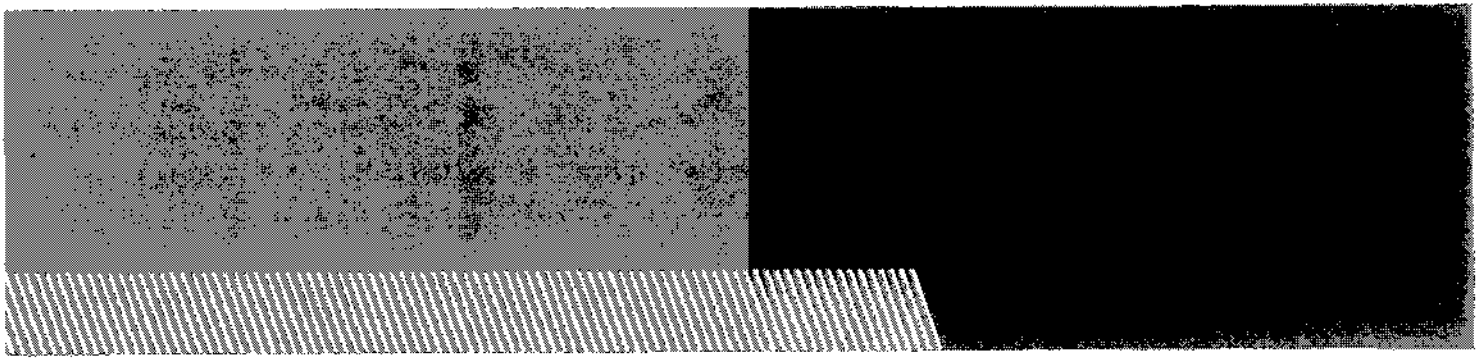
DRAFT AUCKLAND REGIONAL ROAD SAFETY PLAN 2008-2012

*RoadSafe
Auckland*



**Auckland Regional
Transport Authority**

www.arta.co.nz



RoadSafe Auckland is a region-wide road safety group convened by the Auckland Regional Transport Authority (ARTA) and made up of representatives from the Auckland Regional Council, ARTA, Auckland's seven territorial authorities, Land Transport New Zealand, New Zealand Police, Transit New Zealand, Accident Compensation Corporation, Auckland Regional Public Health Service, Safekids, and the Ministry of Health.

www.roadsafeauckland.org.nz

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Contact for more information:

Andrew Bell, Regional Road Safety Coordinator, Auckland Regional Transport Authority,
 telephone: 09-379-4422 ext 9040, email: Andrew.bell@arta.co.nz

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CHAIRMAN'S FOREWORD

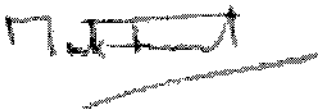
The Auckland Regional Transport Authority (ARTA) is committed to creating a transport system that enables safe, healthy and sustainable transport choices so that people can access employment, education, health, commercial and recreational opportunities.

Safety is a high priority for ARTA. This *Draft Auckland Regional Road Safety Plan 2008-2012* will have a significant influence on road safety activities by influencing funding decisions and focusing the efforts of a range of road safety agencies, local government and community groups to achieve a lower road toll.

The purpose of the original 1994 *Road Safety Plan* was, "to provide a vehicle for co-operation and collaboration among all agencies working to improve road safety in the region and to provide a starting point for planning and action at a local level".

The inception of ARTA in 2004, with its objective to provide a leadership role in the transport sector in the Auckland region, strengthens this purpose and resolve.

Road safety is a shared responsibility between communities, families and individuals, government agencies, local government and many other organisations. ARTA would like your feedback on the proposals outlined in this document.



Mark Ford
Chairman ARTA Board

THE DRAFT AUCKLAND REGIONAL ROAD SAFETY PLAN AT A GLANCE

The region's need for mobility produces road trauma that costs the Auckland region an estimated \$990 million per year in medical costs and lost productivity, and is a significant cause of death. Yet, this road trauma is largely predictable and preventable through a combination of proven and readily available engineering, enforcement and education interventions.

While an estimated \$124 million is spent annually in the region to reduce this road trauma through enforcement, education and engineering, an increased investment is required to achieve the regional road safety target proposed below. The Auckland Regional Transport Authority (ARTA) and RoadSafe Auckland (the regional road safety coordinating group convened by ARTA) propose that the *Auckland Regional Road Safety Plan 2008-2012* include the following overall target, vision, mission, goals and strategies.

Target:

By 2010 there will be 408 or fewer fatal and serious crashes compared with 561 recorded in 2006 (or an equivalent 27% decrease)¹.

Our vision:

No road users are killed or seriously injured on the Auckland region's roads.

Our mission:

The Auckland region leads the country in road safety by achieving the lowest rate of regional road casualties per 10,000 people and per kilometre travelled by 2010.

Our goals:

- i. **Speed-related** road fatalities and injuries within the Auckland region decline from the five-year annual average (2003 to 2007) of 37 deaths and 734 reported casualties.
- ii. **Alcohol-related** road fatalities and injuries within the Auckland region decline from the five-year annual average (2003 to 2007) of 30 deaths and 699 reported casualties.
- iii. **Pedestrian deaths** and injuries within the Auckland region continue to decline from the five-year annual average (2003 to 2007) of 12 deaths and 363 reported casualties.

iv. Motor-vehicle-related deaths and injuries at **intersections** within the Auckland region decline from the five-year annual average (2003 to 2007) of 17 deaths and 1,377 reported casualties.

v. **Motorcyclist** fatalities and injuries within the Auckland region decline from the five-year annual average (2003 to 2007) of 8 deaths and 260 reported casualties.

vi. **Cyclist** fatalities and injuries within the Auckland region decline from the five-year annual average (2003 to 2007) of 1 death and 194 reported cyclist casualties.

vii. The percentage of **unrestrained motor-vehicle-drivers**² killed or seriously injured declines based on the four-year annual average (2002 to 2006) of 18%, and more than 95% of all motor vehicle occupants (including children) continue using approved restraints.

viii. Passenger transport promotion and safety initiatives contribute to an **overall reduction in transport-related deaths and injuries**.

Strategies

The goals will be achieved through a combination of enhanced safety management and engineering, and further development of a safety culture that focuses on:

- > Effective speed management and other initiatives that support a growing community acceptance of speed limits.
- > Well targeted drink drive enforcement, integrated driver rehabilitation and visible host responsibility.
- > Improved pedestrian safety.
- > Improved intersection safety.
- > Initiatives tailored to the needs of at-risk and vulnerable road users
- > Integrated passenger transport safety.

These strategies are outlined in Section 6, along with key actions proposed over the next three to five years.

The road safety context and background pertaining to the Auckland region are outlined in Sections 1 to 3.

Feedback on this consultation draft will inform the proposed *Auckland Regional Road Safety Plan 2008-2012*, which will be released later in 2008.

¹ See Section 7.2 for an explanation of this target, along with state highway and local road targets and targets for each territorial authority. This target will be reviewed when a new national target is set after the *Road Safety to 2010* strategy is reviewed, expected by the end of 2010.

² Crash data available regarding restraint-use is only currently recorded from drivers, i.e. whether or not a passenger is using a restraint is not available. Therefore, this goal pertains to drivers in relation to crashes, but not to drivers and passengers in terms of observational safety belt and child restraint use survey data.

1 INTRODUCTION

While mobility is crucial for the economic, social and cultural well-being of our region, the road safety price we are currently paying for the transport system is too high and clearly unsustainable. Road crashes place a heavy burden on the regional economy, individuals and families with an annual estimated cost of \$990 million of which the bulk is on arterial roads.

This region also faces a number of unique road safety challenges. A rapidly growing and mobile population, an increasingly multi-cultural society, and a unique geography where harbours and volcanic cones constrain transport corridors and create challenges for road safety and for transport in general. Aucklanders often travel relatively long distances across the region for work and other activities, increasing their risk of a crash and increasing the need for a more consistent road environment across the region. The region's many cultures and significant new migrant populations mean that road safety interventions need to be culturally responsive. The Auckland Regional Transport Authority (ARTA) and RoadSafe Auckland will work to address all these challenges through the implementation of this plan, using proven strategies.

1.1 A systems approach to land transport safety

Central, regional and local government, road police, other organisations and community groups have complementary roles in addressing road trauma.

Road controlling authorities, funders and planners need to take reasonable steps to plan, design and build a safer and more sustainable transport system, particularly on arterial roads. This is achieved by adjusting the design of the land use and road networks to accommodate human characteristics and to be more forgiving if an error or misjudgement is made by road users.

Vehicle manufacturers have a responsibility to build safer vehicles, with the vulnerability of the human body (both occupants and pedestrians) as the limiting design factor.

Police have a responsibility to enforce the road rules and remind motorists of their obligations and exposure to crash risk. Communities and organisations have a responsibility to drive within the laws and support a safe driving culture.

International and national road safety advice recommends such a "systems approach" to road safety with a focus on environment (road), vehicle and road user interventions, rather than solely focusing on direct approaches aimed at changing the behaviour of road users (refer to Figure 1 on the right). This approach uses appropriate combinations of engineering, enforcement and education (National Road Safety Committee 2003; New Zealand Road Assessment Programme/KiwiRAP 2008; WHO 2004).

Figure 1. The safe transport system (Source: Adapted from New Zealand Road Assessment Programme/KiwiRAP, 2008)



Improved road safety outcomes will be achieved through interventions that impact on the road environment (usually engineering), the vehicle (type or mode of transport and vehicle standards) and the road user or behaviour (influenced to varying degrees by their environment, vehicle and individual knowledge, attitudes and skills).

ARTA and contributing member organisations to the RoadSafe Auckland group propose that there is a renewed focus on improving engineering interventions while also acknowledging the importance of continuing to improve vehicle standards and influencing road user behaviour through engineering, enforcement, education and encouragement interventions, reflecting a "systems approach".

1.2 Road injury prevention and control – a new understanding

A road safety paradigm shift has been advocated in the *World Report on Road Traffic Injury Prevention* (World Health Organisation, 2004) as follows:

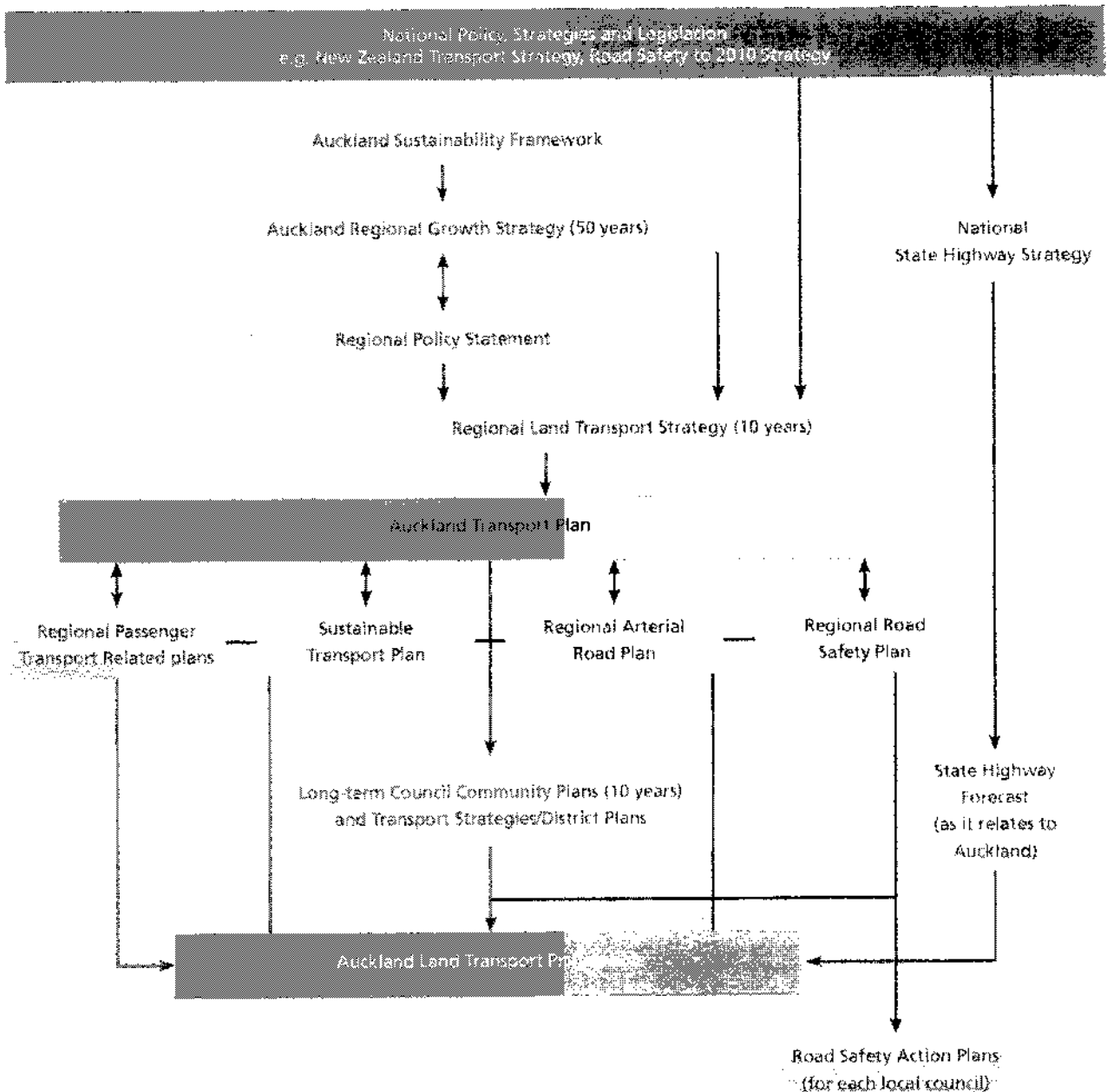
1. Road crash injury is largely predictable and preventable; it is a human made problem amenable to rational analysis and countermeasure.
2. Road safety is a multi-sector issue and public health issue – all sectors need to be fully engaged in responsibility, activity and advocacy for road crash injury prevention.
3. Common driving errors and common cycling or pedestrian behaviour should not lead to death and serious injury – the traffic system should help all users cope with increasingly demanding conditions.
4. The vulnerability of the human body should be a limiting design parameter for the traffic system, and speed management is central.
5. Road crash injury is a social equity issue – equal protection to all road users should be aimed for since non-motor vehicle users bear a disproportionate share of road injury and risk.
6. Technology transfer needs to fit local conditions, and local knowledge needs to inform the implementation of local solutions.

1.3 Land transport planning and road safety planning

Land transport and road safety planning occurs within a range of national and regional policy, strategies and legislation. There are multiple organisations involved and the following section briefly outlines how these policies and organisations are organised for the Auckland region. This document proposes broad goals and strategies for these multiple organisations to work towards.

Figure 2 below outlines the relationship of this context with the *Draft Auckland Regional Road Safety Plan 2008-2012*. Key strategy and policy documents are briefly discussed opposite.

Figure 2. Transport policy and strategy relationships to road safety planning



1.3.1 National picture

Road Safety to 2010 (National Road Safety Committee, 2003) provides the direction for road safety in New Zealand and describes the results the Government wants to achieve by 2010. In summary, it sets out the Government's balanced approach to road safety using initiatives built around the "three E's" (engineering, education and enforcement) and the priority areas that will be a focus for the Government's road safety activity up to 2010.

Road Safety to 2010 is an important component in achieving the New Zealand Transport Strategy goal of an affordable, integrated, safe, responsive and sustainable transport system.

The *Road Safety to 2010* strategy is due for review by the end of 2010, and this review may influence the implementation of this plan. Any revised targets within a new national road safety strategy will be incorporated in subsequent reviews of the *Auckland Regional Road Safety Plan*.

The Ministry of Transport provides overall policy advice to the Government on transport-related issues including road safety.

Currently, four main organisations are responsible for implementing a range of transport programmes, including safety programmes. These are the New Zealand Police, Land Transport New Zealand, Transit New Zealand and territorial authorities. Each of these agencies has its own work programme and related performance measures and targets. The *Draft Auckland Regional Road Safety Plan 2008-2012* will attempt to align with these as best as possible.

From 1 July 2008, Land Transport New Zealand and Transit New Zealand will merge to form the New Zealand Transport Authority.

Other organisations such as the Ministry of Health and Accident Compensation Corporation have supportive road safety roles.

1.3.2 Regional and local picture

As a coordinating group, RoadSafe Auckland has a long history of providing road safety coordination across the Auckland region and first launched an *Auckland Regional Road Safety Plan* in 1994. The Auckland Regional Transport Authority (ARTA) was set up in 2004 to be the central coordinating agency for transport in the Auckland region.

Regional Land Transport Strategy and Auckland Transport Plan

Previous regional road safety plans were developed by RoadSafe Auckland under the guidance of the Auckland Regional Council and successive *Auckland Regional Land Transport Strategies*.

Recent changes to the transport environment within the Auckland region mean that the *Auckland Regional Road Safety Plan* now sits under the *Auckland Transport Plan* (Auckland Regional Transport Authority, June 2007) and is adopted by the ARTA Board as part of the overall implementation planning for the *Auckland Regional Land Transport Strategy* (Auckland Regional Council, 2005).

The *Draft Auckland Regional Road Safety Plan 2008-2012* will be the fourth such plan, and for the first time it will provide a direct influence on the funding of regional and local projects, including dedicated safety engineering projects that will be funded through the *Auckland Land Transport Programme* under the *Auckland Transport Plan* (Auckland Regional Transport Authority, June 2007). The *Auckland Land Transport Programme* provides a mechanism for the allocation of funding for road safety initiatives across the region for education (community programmes, advertising and local projects) and

engineering (pedestrian and cycling infrastructure projects, funding to address priority safety problems).

The *Draft Auckland Regional Road Safety Plan 2008-2012* will outline how the region proposes to achieve the *Auckland Transport Plan* desired outcomes² of "an established road safety culture", "a safe and secure environment for vulnerable road users", "passenger transport that is safe to ride", and "significantly reduced crash deaths and injuries" and also the region's contribution to national road safety goals and targets.

Long Term Council Community Plans

Long Term Council Community Plans (LTCCPs) are put together by local authorities in consultation with their communities to identify overall community issues. These are then used to prioritise council activities and funding. The *Auckland Transport Programme* is envisaged as guiding the preparation of LTCCPs and can therefore influence regional and local road safety planning.

Local Road Safety Action Plans

Each of the seven local authorities in the Auckland region uses a *Road Safety Action Plan* (RSAP) to record agreed local road safety risks, objectives and targets, actions, and monitoring and reviewing processes. RSAPs are the result of collaboration by key road safety partners (e.g. Land Transport New Zealand, Transit New Zealand, the local authority, New Zealand Police, Accident Compensation Corporation, community representation) and provide an important link between national, regional and local road safety outcomes.

Planning is driven by the evidence base (e.g. crash data, survey data, enforcement statistics, Crash Reduction Study results, local enforcement intelligence, regional strategies and district plans, and input from communities, including Long Term Council Community Plans). RSAPs are outcome-focused and they ensure that resources are targeted to risk, i.e. they encourage a proactive approach to reduce crash risk by directing resources to emerging trends as well as known high-risk areas.

The RSAP process also identifies high-risk stretches of the state highway through a detailed analysis of crash trends. These areas are addressed as separate State Highway Network Safety Coordination projects.

The RSAP multi-agency approach used for achieving crash reduction has been internationally acknowledged as an innovative and best practice local road safety planning tool (Castle and Kanya-Lukoda, 2006).

1.3.3 Role of RoadSafe Auckland

RoadSafe Auckland is a region-wide road safety group convened by ARTA and made up of representatives from the Auckland Regional Council, ARTA, Auckland's seven territorial authorities, Land Transport New Zealand, New Zealand Police, Transit New Zealand, Accident Compensation Corporation, Auckland Regional Public Health Service, SafeKids, and the Ministry of Health.

The RoadSafe Auckland group was established in 1991 by the Auckland Regional Council to provide improved multi-agency coordination of road safety activity within the region and has overseen the development and implementation of a range of road safety activities from this time, primarily guided by a succession of regional plans that have outlined priority areas, strategies and performance measures.

² See page 46 of the *Auckland Transport Plan* (www.arta.co.nz/plans-and-policies/).

The role of RoadSafe Auckland is primarily one of coordination and information sharing to assist improved collaboration between road safety agencies in the region. RoadSafe Auckland also oversees the coordination of a number of regional programmes and projects through ARTA.

As a group, RoadSafe Auckland has achieved the following for the region:

Coordination, Funding, Advocacy

- > Provided a coordinated approach to enforcement, engineering and education activities since 1991.
- > Provided regional communication networks, including Road Ahead Newsletter and RoadSafe Auckland website since 2000.
- > Made annual recommendations on police traffic enforcement funding for the region, resulting in increased enforcement.
- > Managed and processed all community-funded transport activities.
- > Lobbied for improvements to speed, alcohol, pedestrian and intersection safety regionally and nationally.
- > Provided technical papers for Regional Road Safety Engineering spend to 2016 and input to the Auckland Regional Land Transport Strategy and the New Zealand Transport Strategy.
- > Provided national leadership on safety and sustainability, young drivers, and repeat drink drivers' policy and programme development.

Infrastructure

- > Initiated the Red Light Camera trial in the Auckland CBD.
- > Developed funding mechanisms for school travel plan infrastructure.

Community Projects

- > Supported and funded walking school buses since 2001.
- > Directly funded 50 community road safety projects in the region.
- > Funded the first Maori and Pacific road safety forums.
- > Funded and developed the first repeat drink driver rehabilitation programme.
- > Implemented region-wide compulsory breath test enforcement.

Social Marketing

- > Delivered annual regional road safety advertising projects since 1999, using motorway billboards and other social marketing tools.
- > Delivered key regional education programmes including young driver education in secondary schools, and the promotion of road safety in schools.

Planning

- > Maintained and monitored a *Regional Road Safety Plan* since 1994, which has assisted in an overall reduction in the road toll in the Auckland region.

1.4 Road safety and sustainable transport

It is proposed that the *Auckland Regional Road Safety Plan 2008-2012* continues to focus on key road safety strategies to reduce vehicle crashes, and also places more emphasis on creating safe, liveable streets which encourage walking for short journeys (i.e. built on the pedestrian safety initiatives outlined in previous plans). It is also proposed that a specific emphasis on cycle safety and motorcycle safety is included in response to the importance of cycling as a sustainable transport mode and the recent increase in motorcycling (including the use of motor scooters).

1.4.1 Walking and cycling

As signalled in the previous *Auckland Regional Road Safety Plan* (Auckland Regional Council, RoadSafe Auckland, 2005), a systems approach is essential to integrating road safety and sustainability. Promotion of walking and cycling without appropriate safety measures could lead to increased pedestrian and cyclist deaths and injuries. It is important to acknowledge this relationship and foster interventions that both encourage increased walking and cycling while making these modes safer, by providing improved infrastructure for pedestrians and cyclists and by lowering vehicle speeds.

The aim is to achieve a "safety in numbers effect". Cities with higher rates of walking, cycling and passenger transport use have reduced road trauma, and having more pedestrians and cyclists in a particular local area is associated with a lower crash rate for pedestrians and cyclists.

The promotion of active modes will assist broader health goals aimed at addressing chronic diseases such as heart disease, some cancers, obesity and diabetes (Auckland Regional Public Health Service, 2006).

Walking and cycling are distinct travel modes and pedestrians and cyclists have diverse needs. Designing pedestrian and cycling networks and facilities requires attention to these diverse and sometimes conflicting needs (Ministry of Transport, 2005).

The *Sustainable Transport Plan* (Auckland Regional Transport Authority, 2006) supports initiatives such as walking school buses, school and workplace travel plans and neighbourhood accessibility plans. These initiatives have potentially significant safety benefits. For example, travel plans and town centre upgrades often involve engineering improvements that include safety engineering aspects, improved access to passenger transport, and traffic calming.

1.4.2 Passenger transport

The promotion of passenger transport is an important mechanism to improve road safety outcomes. More people using passenger transport such as buses and trains will bring improved road safety outcomes as these modes are inherently safer than private motor vehicle use.

While passenger transport is generally safer than other transport modes (World Health Organisation, 2004) there are a number of safety interventions that require ongoing focus. For example, Crime Prevention Through Environmental Design (CPTED) measures need to be built into upgrades to public transport system including places where people are likely to walk, cycle or otherwise access public transport. Rail safety could be improved at level crossings and by reducing pedestrian trespass on rail corridors.

1.5 Fundamentals of a successful road safety plan

The New Zealand road safety framework is considered world best practice due to the multi-agency approach, allocation of funding for engineering, enforcement and education, work with high-risk groups and communities, relationships between national targets and local action, and evaluation and monitoring processes (Castle and Kanya-Lukoda, 2006). Where New Zealand needs to make progress is in terms of setting a greater vision, gaining acceptance of controversial road safety proposals, and championing the targets and action plans to achieve them.

This *Draft Auckland Regional Road Safety Plan 2008-2012* sets a challenging vision, clear goals, realistic targets, and encourages new design safety features, integrated community programmes and the use of new technologies. It also specifies actions that are open to regular monitoring. However, the major factors for the plan's success or failure will be collaboration among key stakeholders, the implementation of identified initiatives, political will, professional knowledge and a commitment to funding.

Therefore the implementation of a systems approach to road safety relies on a strong foundation of partnership. ARTA, with the input of RoadSafe Auckland member organisations, has identified the following interconnected key principles that will underpin the success of the *Draft Auckland Regional Road Safety Plan 2008-2012* as:

- > Commitment to the Treaty of Waitangi
- > Community involvement and ownership
- > Visible enforcement and legislation
- > Commitment to safety engineering
- > Developing skilled practitioners.

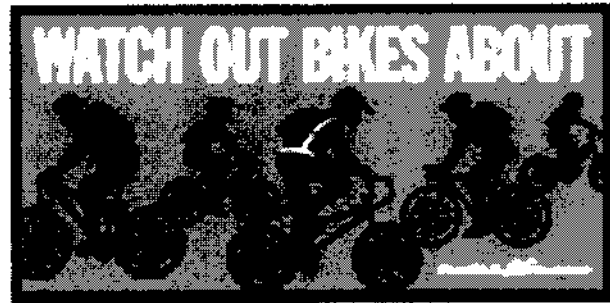
1.5.1 Commitment to the Treaty of Waitangi

The Treaty of Waitangi is the founding document of New Zealand and is the basis on which Nga Rangatira o Nga Hapu and the Crown agreed to co-exist. It is the overarching framework of the constitutional foundation of New Zealand. As such, the Treaty of Waitangi establishes the relationship between the Crown and Maori, providing a framework for all organisations and agencies that work with whanau, hapu, iwi and Maori. For road safety initiatives to be effective, due consideration of the principles of the Treaty of Waitangi needs to permeate throughout all levels of planning and implementation of education, enforcement and engineering activities.

1.5.2 Community involvement and ownership

Improved road safety outcomes can only be achieved by meaningful involvement of communities that foster ownership of road safety issues and solutions. ARTA, along with RoadSafe Auckland member organisations (including road safety agencies), will continue to work with communities to foster a road safety culture.

The use of social marketing programmes is another way of engaging with communities and fostering a safety culture or behaviour change around specific road safety issues.



RoadSafe Auckland has a long history of innovative social marketing campaigns that use motorway on-ramp and off-ramp billboards as illustrated by this 2006 "Share the Road" campaign

1.5.3 Visible enforcement and legislation

Enforcement of road rules and related legislation continues to be a key means of improving road safety outcomes especially in relation to drink-driving, excessive speed, failure to give way or stop at intersections and other behaviours. Legislation and enforcement are controlled by central government but ARTA, through its work with RoadSafe Auckland member organisations, will continue to advocate improved enforcement in priority areas such as drink-driving, speeding, red-light running, young/novice driver issues, illegal street racing and hazardous beach driving.

1.5.4 Commitment to safety engineering

There is currently high support nationally and in the Auckland region for road safety engineering improvements, particularly for state highways and motorways, but also for pedestrians and cyclists. It is proposed to substantially strengthen the safety engineering focus of the *Draft Auckland Regional Road Safety Plan 2008-2012* by articulating funding pathways and outlining packages of safety engineering projects for widespread implementation across the region, particularly on arterial roads where the majority of injury crashes occur (refer to Section 4.2 on page 25)

1.5.5 Developing skilled practitioners

While improving road safety is a widely held shared aim, there are relatively few qualified road safety professionals in the region tasked with the actual implementation of this goal. ARTA and RoadSafe Auckland member organisations will continue to champion the professional development needs of road safety professionals in the region by encouraging best-practice training on key road safety issues, advocating for improved national professional development and recognised qualifications.

2 OVERVIEW OF TRENDS AND ISSUES

As in previous plans, ARTA, with input from RoadSafe Auckland member organisations, has drawn on a detailed analysis of crash and other road safety data to inform the *Draft Auckland Regional Road Safety Plan 2008-2012*. A brief overview of the data is outlined below⁴.

2.1 Road safety is an important contributor to health and well-being

Between one and two people die on Auckland region roads on average each week, and motor vehicle-related crashes remain a leading cause of death and hospitalisation in the Auckland region. Transport-related deaths are a significant cause of death across all age groups. Transport-related hospitalisations are the second leading cause of hospitalisations nationally and within the Auckland region, and account for approximately 10% of all hospitalisations in the region.

Fear of road crashes is a key reason behind the current steep decline in time spent walking and cycling, especially among children and older adults. Reduced physical activity is associated with reduced well-being and a range of long-term health problems including heart disease, diabetes and mental illness.

2.1.1 Road safety data trends

Crash data (1995 to 2007) and related road safety data highlight the following key points:

- > Road fatalities in the Auckland region are showing a long-term downward trend, with 2007 showing a significant drop on previous years, but the overall number of road injuries in the Auckland region has an increasing trend in absolute terms and as a rate per population. The Auckland region has a higher casualty rate than the Wellington region but lower rates than Northland and other regions.
- > Speed-related road fatalities (38% of all road deaths) peaked in 2004, and casualties peaked in 2005 with a recent decrease in 2007.
- > Alcohol-related road fatalities (36% of all road deaths) peaked in 2003/2004 and casualties have an increasing trend.

- > Crash casualties at intersections have an increasing trend and deaths at intersections (20% of all road deaths) peaked in 2003.
- > Pedestrian injuries have a decreasing trend but pedestrian-related deaths (21% of all road deaths) have remained constant over the last few years.
- > Cyclist injuries have a slight increasing trend, but the overall number of deaths and injuries are small (note: under-reporting of cycle crashes is well recognised).
- > Motorcyclist (including moped riders) injuries are increasing and the number of registered motorbikes is increasing, but motorcyclists deaths have a decreasing trend.
- > Injury and non-injury rear-end motorway crashes show some fluctuation from year to year, but otherwise appear constant over the last few years.
- > Injury crashes on bends (loss of control/head-on) on local roads peaked in 2006, and on state highways fluctuate from year to year but appear to be decreasing.
- > Safety belt and child restraint use across the Auckland region is above the national total, but lower than the best region.
- > The Auckland region has one of the worst cycle helmet wearing rates, which may reflect a lack of attention to this safety intervention in this region.
- > Alcohol and speed enforcement safety attitudes in the Auckland region have slipped between 2003 and 2007 (Ministry of Transport)⁵.

Refer to Appendix 2 for more detailed crash data and Appendix 3 for other road safety issue data.

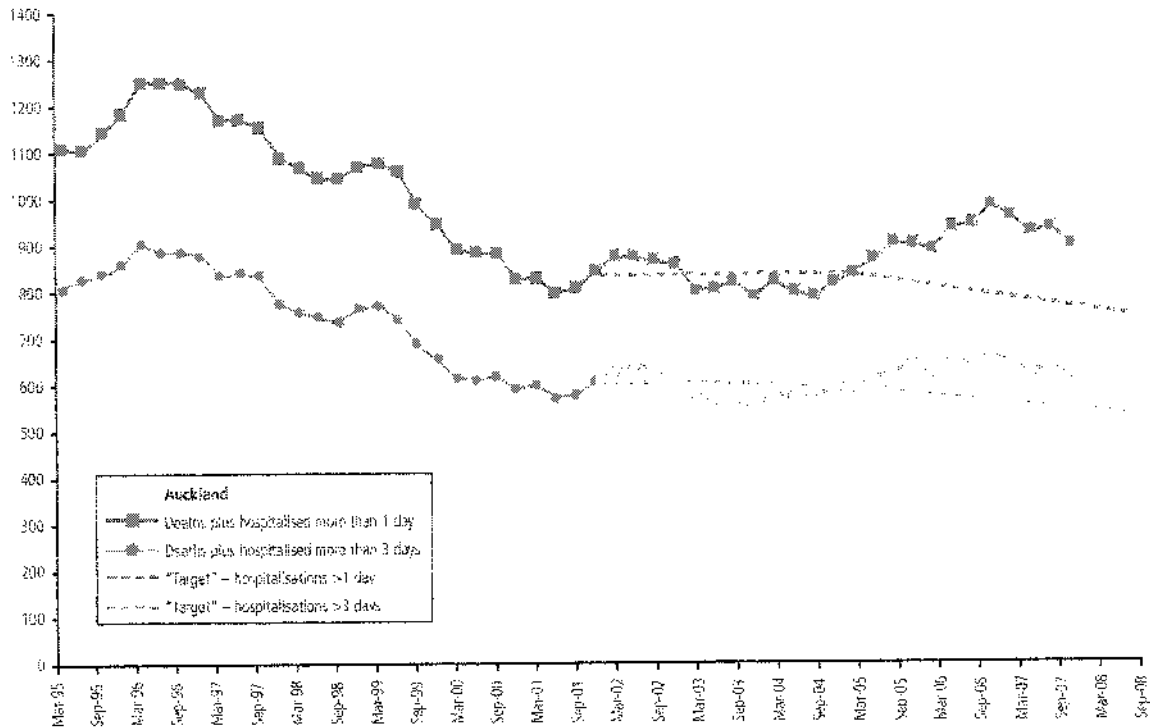
⁴ More detailed data breakdowns are included in Appendix 2 and Appendix 3.

⁵ A comparison between the selected attitudes reported from the 2003 public attitude survey and the latest available survey (i.e. 2007) is outlined in Table 7 on page 52 (Land Transport New Zealand/Ministry of Transport – www.transport.govt.nz/public-attitudes-index/).

The chart below outlines the 12-month rolling total of deaths plus hospitalisations for the Auckland region. The chart clearly shows the gap between actual figures and the target set within Road Safety to 2010 (National Road Safety Committee, 2003).

Chart 1. Deaths plus hospitalisations trend in relation to 2010 targets (Source: Ministry of Transport, 2008)

Deaths plus hospitalisations (12 month total) resulting from road crashes
Auckland region from March 1995 to December 2007



2.1.2 Regional comparison

The Auckland region has 32.3 road casualties each year per 10,000 people. This is a higher rate than the Wellington region (26.4), but lower than Canterbury (35.1) and Northland (49.8).

Table 1. Casualty rates for the Northland region, Auckland region, Wellington region and Canterbury region for 2006 (Source: Ministry of Transport, 2007)

Region	Population (000)	Casualties per 10,000 population	Casualties	Deaths	Total casualties including deaths
Northland	149.7	49.8	716	29	745
Auckland	1,373.9	32.3	4,354	84	4,438
Wellington	464.5	26.4	1,199	32	1,226
Canterbury	650.2	35.1	1,851	38	1,929

2.1.3 International comparison

The *Road Safety to 2010* strategy national goals set in 2002 aimed to achieve a level of road safety comparable to that in the safest countries at that time (e.g. Australia, United Kingdom, Netherlands, Norway and Sweden). Figures 3 and 4 below provide an international comparison of road deaths per 100,000 population and per 10,000 vehicles as at 2005. Both figures show that New Zealand has some way to go to be comparable to the safest countries, including being as safe as Australia and the United Kingdom.

Figure 3. International comparison of deaths per 100,000 population in 2005
(Source: International Road Traffic and Accident Database)

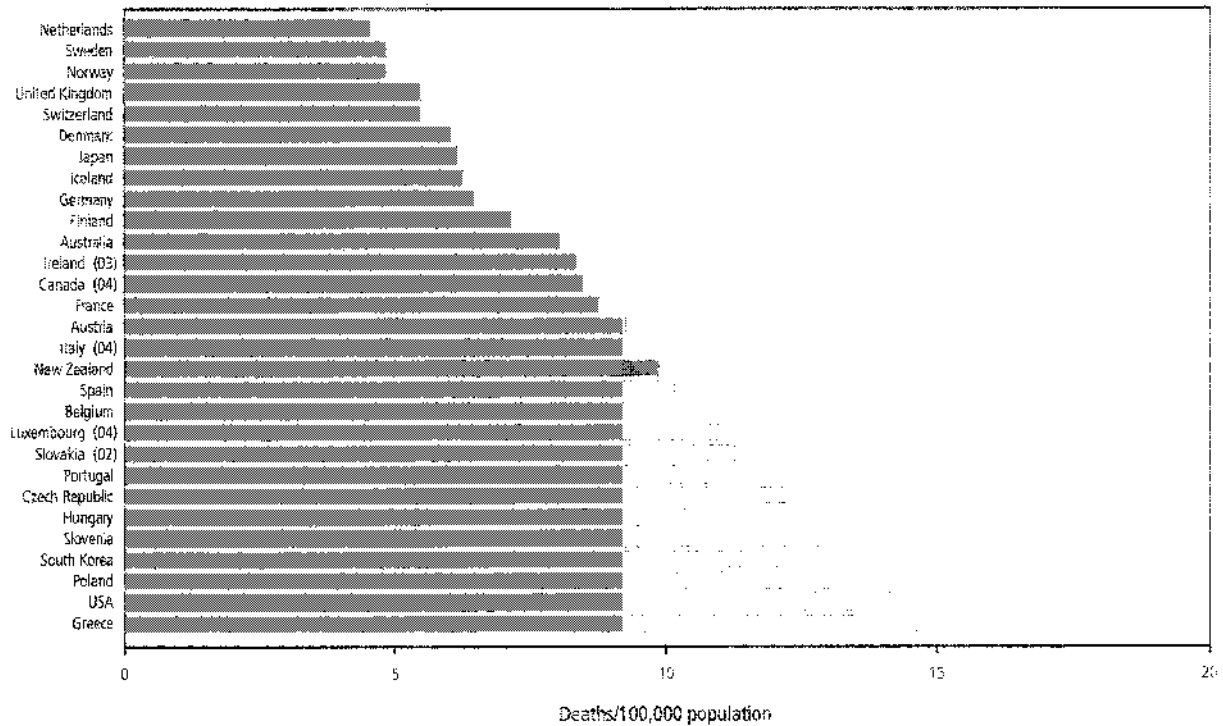
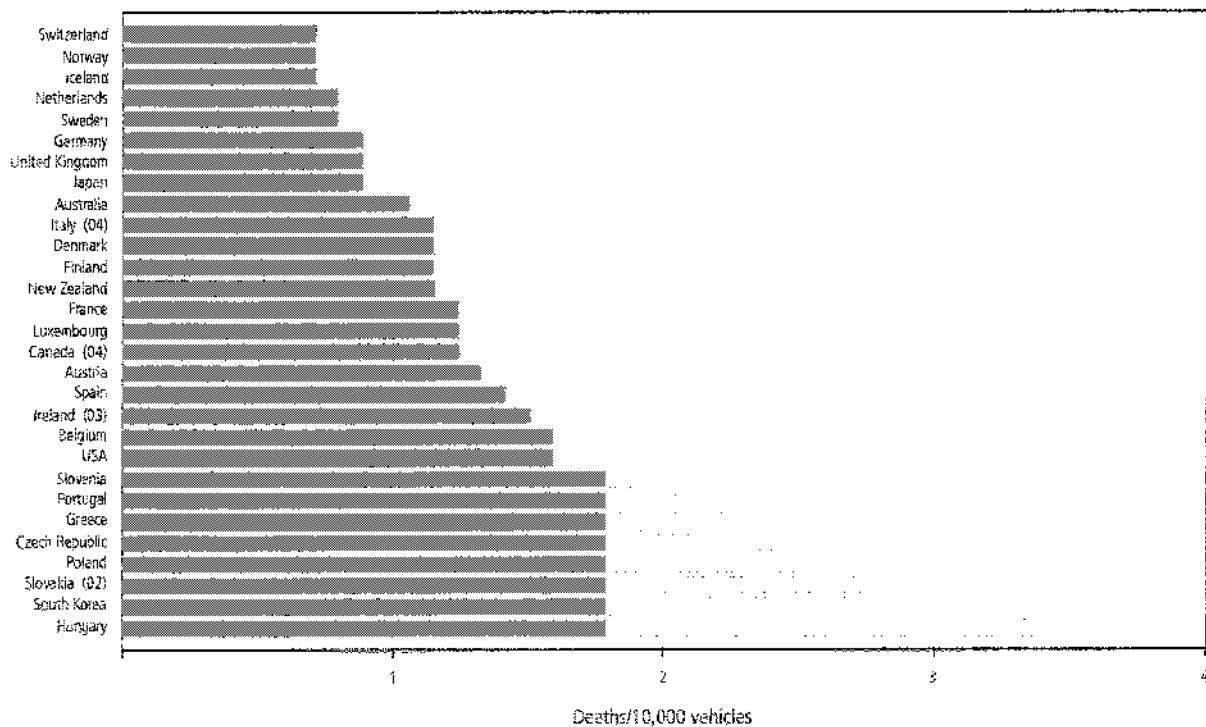


Figure 4. International comparison of deaths per 10,000 vehicles in 2005
(Source: International Road Traffic and Accident Database)



2.2 Identifying key issues and targeting of resources

ARTA and RoadSafe Auckland member organisations work within limited resources by identifying key issues and targeting resources to these issues. This means that, while any road death or injury is unacceptable, greatest effort is applied to the areas of greatest risk.

2.2.1 Key road safety issues facing the Auckland region

ARTA, with input from RoadSafe Auckland member organisations, has determined key issues by focusing on a combination of factors that represent high actual numbers (e.g. alcohol and speed crash factors; crashes at intersections, on bends and with roadside hazards, and pedestrian deaths) and high-risk issues (e.g. vulnerable road users, and at-risk communities).

The two leading causes of death on Auckland's roads continue to be speed-related and alcohol-related crashes, while significant proportions of people are killed or injured as pedestrians, and at intersections. Bends and roadside objects are contributing factors in a high proportion of injury and fatal crashes.

Vulnerable road users are particularly at risk of death and injury, and include pedestrians, motorcyclists, and cyclists. At-risk communities include Maori, Pacific, Asian and new migrant people who have higher death or injury rates for some road safety issues in relation to other New Zealanders and contribute to inequalities in health. The increased risk for certain population groups is complex but is often associated with lower socio-economic status.

A review of the 2005 *Auckland Regional Road Safety Plan* concluded that to achieve improvements in road safety outcomes within the Auckland region there needed to be further attention on key priorities listed below:

i. Speed or too fast for conditions

Research indicates that speed reduction can significantly reduce the number and severity of road casualties, and improved speed management can be achieved by engineering, enforcement and community initiatives.

ii. Drink driving

Drink driving is a significant factor in crashes and fatalities and can be addressed by targeted and universal programmes such as host responsibility, programmes aimed at young drivers and repeat drink drivers, and improved legislation and enforcement of alcohol laws.

iii. Pedestrian safety

Pedestrians continue to be killed and injured in the region. Improvements to town centres, improved speed management and provision of more pedestrian facilities will improve safety. Urban planning and design and community education also contribute.

iv. Intersection injury crashes

Injury crashes at intersections remain a significant issue for the region and require an increased focus on engineering and "crash cluster/blockspot" programmes, increased enforcement, including the use of improved technology (e.g. red light cameras) and ongoing community education.

v. Child restraint and safety belt use

Restraint and safety belt data indicate that ongoing attention is required to maintain and increase a high use rate through continued enforcement, local community promotions, and measures to ensure restraints are installed appropriately.

vi. Cyclist safety

Cycling is being actively promoted and the number of cyclists is increasing, requiring improved cycle facilities, speed management of motor vehicles and safety education and promotions.

vii. Motorcyclist safety

Motorcyclist numbers are increasing and crashes are increasing, requiring a range of rider training and safety promotions.

viii. Crashes on bends and with roadside hazards

Safety engineering for specific issues and hazards including bends and roadside hazards has huge potential to improve road safety and requires a stronger focus across the region.

2.2.2 Emergent issues

ARTA, with input from RoadSafe Auckland member organisations, has attempted to assess possible emergent road safety issues and acknowledges that specific road safety issues that require attention will arise from time to time.

For the latest plan it is proposed that cyclist and motorcyclist safety requires more attention in the Auckland region due to increased numbers of cyclists and motorcyclists and increased crashes.

Illegal street racing (or "boy-racers") has been a road safety concern over recent years, and occasionally hits the media. This issue is embedded in a broader youth and speed culture. It involves a relatively small number of people that cause harm to property and create a serious nuisance. As a road safety issue, ARTA and the RoadSafe Auckland member organisations believe that it is best addressed by enforcement and improved legislation (currently in development nationally). With sufficient police resources, the road safety risks of illegal street racing can be contained.

Similarly, beach driving has received some focus in late 2007 with the tragic death of a teenager on a Northland beach. This incident prompted a review of controls on certain beaches within the Auckland region. Again, ARTA and RoadSafe Auckland member organisations believe that appropriate legislation and enforcement measures will assist with containing this issue.

Recently, SafeKids and others have highlighted that the use of adult safety belts without the use of booster seats can be less than effective for children over the age of five and that there is mounting evidence that the recommended age limit for children to use booster seats needs to be increased.

Driver distraction can be a crash factor and often focuses on mobile phone use. Research indicates that the distraction of mobile phone use is as significant as, or more so than the use of mobile phones. Despite the relatively infrequent reports of crashes attributed to mobile phone use, RoadSafe Auckland member organisations as a group have advocated for a law against the use of mobile phones while driving as an important measure to reduce a well researched crash risk factor.

The Auckland region is experiencing significant growth and development that places pressures on road infrastructure and sometimes works against planned road improvements as land use changes and alters traffic patterns. This highlights the need for transport engineers and planners to work more closely with town planners to anticipate land use changes and impacts of new developments, to avoid the creation of new hazardous road environments.

2.3 Key crash routes and maps

The following maps (Figures 5 to 12 on the following pages) show the cost per kilometre of road crashes (i.e. crash cost densities) per year (based on data for 2002 to 2006) for the Auckland region as a whole (including state highways) and for each territorial authority area (local roads only, i.e. not including state highways).

Cost is defined as the social cost⁴ of crashes whereby each reported crash is assigned a cost depending on the severity of the crash with fatal crashes obviously being assigned higher values than minor injury crashes. A key limitation of the data included in the maps is that the apparent "cost per kilometre" on short roads may be misleading, e.g. a single fatal crash on a very short road will highlight the road as having a higher crash cost density than longer roads with more crashes. Also, the data is based on cost per kilometre of road, not per kilometre of travel. Therefore more heavily travelled roads are likely to have more crashes and higher crash cost densities than roads with lighter flows, despite not being necessarily more dangerous to the individual road user. Despite these limitations the maps indicate roads or routes that have greater or lesser crash issues and can assist road safety planning, especially for safety engineering purposes.

⁴ The Ministry of Transport describes "social cost of road crashes" as a dollar measure of all the damage to society resulting from road crashes. This includes financial (such as medical, legal, loss of output and property damages) and non-financial (loss of life and life quality) costs. The latter is derived from surveys that ask New Zealanders how much they would pay to reduce the chances of death, injury and the pain, grief and suffering resulting from crashes.

