National Rail Strategy to 2015

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FOREWORD

It is my pleasure to present the Government's new *National Rail Strategy.*

When this Government came to office in 1999, we had already made a very firm commitment to give clear directions to the New Zealand transport system that would reflect the realities we shall face in the 21st century. This commitment led to the *New Zealand Transport Strategy* being released in December 2002.

The *New Zealand Transport Strategy* states that 'by 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system'.

To achieve this we have set five objectives, all equally important:

- To assist economic development
- To assist safety and personal security
- To improve access and mobility
- To protect and promote public health
- To ensure environmental sustainability

Another driver of this process has been the Kyoto Protocol, which the Government agreed to ratify three years ago, and which came into force in February 2005. In order to meet our protocol commitments we shall need to focus on reducing transport energy use in particular. Under the right conditions, rail is a very energy-efficient transporter of both passengers and freight, and we look forward to seeing better use of New Zealand's rail network.

Now we have brought New Zealand's rail infrastructure back into public ownership, and the vision and objectives of the *New Zealand Transport Strategy* will be applied to New Zealand's railway network.

Through the *National Rail Strategy,* the Government is demonstrating its commitment to retaining the existing network; to investigating the development of a number of new railway lines; and to maximising the use of rail transport. The aim is to move people out of cars for urban journeys, and freight off roads, wherever possible. For freight this means a focus on bulk or containerised loads, including traffic such as milk or logs. For passengers it means a focus on busy urban corridors in the larger centres, and using smart thinking to manage congestion.

This is an exciting time in New Zealand transport, with a dynamic vision beginning to achieve real results, working towards an affordable, integrated, safe, responsive, and sustainable transport system. The Labour Progressive government acknowledges the contribution of the Green Party to the development of this Strategy, and both the Green Party and the United Party's support of the government's transport policy.

Hon Pete Hodgson
Minister of Transport

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INTRODUCTION

The Government was the owner and operator of virtually all of New Zealand's rail infrastructure, passenger and freight operations until 1993 when the rail network and operations were sold to Tranz Rail Holdings Limited. (Toll Holdings, as majority shareholder from 2003, renamed the company Toll NZ.) The Government retained ownership of the land on which the rail assets were situated and leased the land to the rail operator.

The Government repurchased the Auckland rail infrastructure in 2001 and the rest of the national rail network in 2004, to secure a vital part of New Zealand's transport infrastructure in the national interest. The New Zealand Railways Corporation (trading as ONTRACK) has held these assets since 1 September 2004, and is responsible for managing and operating the national rail network.

Crown ownership of the rail infrastructure provides the Government with the opportunity to ensure that the rail system is maintained and developed in accordance with its vision for an affordable, integrated, safe, responsive, and sustainable transport system, as set out in the *New Zealand Transport Strategy.*

With the Government's purchase of the national rail network, it is timely and useful to have a clear statement of its future intentions to take the rail industry forward. The *National Rail Strategy,* under the umbrella of the *New Zealand Transport Strategy,* provides a framework for strategic planning across the government rail sector. It provides a structure for planning the development of the rail network in a way that recognises the Government's focus on shifting commuter and freight traffic from road onto rail, where appropriate, to ease road traffic congestion, benefit the environment, and improve safety, personal security, and health.

The *National Rail Strategy* sets out the Government's rail policy objectives and priorities for action over the next ten years, and outlines key initiatives that are intended to achieve the outcomes sought. Within this framework, government rail sector agencies will be responsible for developing the detailed programmes and strategies required to achieve the objectives.

The *National Rail Strategy* focuses on growth in two key areas: freight, especially bulk and containerised; and urban passenger transport. It is in these areas that New Zealand's rail network is at its most efficient – relatively fast, low-cost movement of large amounts of uniform freight or large numbers of people. In addition, as parts of the rail network are relatively underutilised, there may be fewer capacity constraints compared to roads, so growth may be more readily accommodated.

Prior to the Government's repurchase, investment in the rail network had been at low and declining levels over a number of years, which led to problems with deferred maintenance, concerns about safety, and declining service capability. The rail infrastructure is receiving significant new investment in some areas which will improve the efficiency of the network, attract new freight flows, attract new freight flows and increase the number of commuters. In addition, because of increasing demand for efficient freight movement in New Zealand's growing economy, and growing congestion in both Auckland and Wellington, there will be natural growth in rail freight and urban rail passengers. The *National Rail Strategy* seeks to build on this foundation of growth, to maximise the Government's investment in rail, and to support objectives for transport as a whole.

GOVERNMENT'S TRANSPORT GOALS AND OBJECTIVES

Policy Context

New Zealand Transport Strategy

The *New Zealand Transport Strategy (NZTS)* outlines the Government's vision for transport in New Zealand, and provides the framework within which transport policy is developed.

The NZTS outlines how an integrated mix of transport modes can contribute to economic growth, increased safety and personal security, improved access and mobility, improved public health, and the enhanced environmental sustainability of transport in New Zealand.

Legislative framework

A new legislative framework has been established to give effect to the Government's transport goals and objectives.

The Land Transport Management Act 2003 (LTMA) provides the framework for a more integrated approach to the funding and management of land transport. The LTMA provides for funding flexibility to achieve greater consistency in long-term planning of the transport networks, and a multi-modal approach, in order to achieve a more integrated transport infrastructure.

Separate legislation, the Rail Network Bill, will provide the structure and management framework for the national rail network owner and operator, the New Zealand Railways Corporation (ONTRACK).

Links to other government strategies

Transport, including rail transport, is identified in a number of government strategies as contributing towards achieving the economic, social, and environmental outcomes that government desires for New Zealand in the 21st century. Further, some of these strategies will contribute to the objectives of the *National Rail Strategy*.

Government strategies that link to, or have informed the development of, the *National Rail Strategy* include: the *Crime Reduction Strategy*, *National Energy Efficiency and Conservation Strategy, National Civil Defence Emergency Management Strategy, Growing an Innovative New Zealand, New Zealand Climate Change Programme, New Zealand Disability Strategy, New Zealand Health Strategy, New Zealand Injury Prevention Strategy, New Zealand Tourism Strategy, Oceans Policy, Positive Ageing Strategy, Road Safety to 2010 Strategy, and the Sustainable Development Programme of Action.*

NEW ZEALAND TRANSPORT STRATEGY

Vision for transport

By 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system.

Principles

- Sustainability
- Integration
- Safety
- Responsiveness

Objectives

Assisting economic development

New Zealand's economic development relies on a coherent, affordable, efficient, and effective transport system that improves the flow of people, goods, and services, both within New Zealand and to and from other parts of the world.

Assisting safety and personal security

The NZTS seeks to improve the safety and personal security of those who use or are affected by the transport system. Significant efforts to improve the long-term safety performance of all transport modes are under way, including the development of long-term modal safety strategies.

Improving access and mobility

Transport systems give people mobility and provide access to a range of work and other opportunities. Accessible, affordable, and reliable transport services and infrastructure, both within and between communities, make an important contribution to better access and mobility.

Protecting and promoting public health

The transport system contributes to positive health outcomes when the negative health impacts of transport arising from transport-related emissions (noise, waste, and other pollutants) are minimised, and the use of active transport modes, such as walking and cycling, is supported.

Ensuring environmental sustainability

A transport system that supports environmental sustainability will make more efficient use of resources and shift, over time, to using renewable resources and minimising adverse effects on land, air, water, communities, and ecosystems.

THE NEW ZEALAND RAIL INDUSTRY

Commercial Framework

Purchase of the national rail network

The Government has purchased the national rail network and related assets, including rail tracks, structures such as tunnels and bridges, and signalling, train control, and track maintenance operations. ONTRACK has held these assets since 1 September 2004, and is responsible for managing and operating the national rail network.

New Zealand's national rail network totals approximately 4000 km. There are also a number of privately owned lines and sidings.

There are 2187 railway bridges and viaducts: the longest, at 1.7 km, is over the Rakaia River. There are 149 railway tunnels, the longest being the Kaimai (8.9 km).

Access to the network

Toll NZ has exclusive access rights until 2070 for freight, existing long-distance passenger operations, and the Wellington metro passenger service. Auckland urban rail passenger services are provided by Connex New Zealand under contract to the Auckland Regional Transport Authority. Toll NZ freight and passenger rights are subject to 'use it or lose it' provisions. New operators will be able to operate long-distance passenger services on routes not serviced by Toll NZ from July 2007.

Other operators can exercise their existing access rights on the network, and can be granted access rights to line segments where Toll NZ is unable to meet its 'use it or lose it' obligations, or does not take up its right to operate over new sections of the network. In such circumstances ONTRACK will grant access rights to new operators on a non-exclusive basis. Heritage operators will negotiate with ONTRACK for the use of the network.

Track Access Charges

ONTRACK will be responsible for setting Track Access Charges (TAC) for all operators. In setting access charges, ONTRACK will be required to recover the costs of operating the network, beyond the initial funding of $200 million. The agreements with Toll NZ and Connex New Zealand (the Auckland passenger operator) provide a process for agreeing the TAC-related portion of ONTRACK's budget, and the agreement with Toll NZ also provides for agreeing increases to ONTRACK's capital base, both of which will be key determinants of the level of the TAC.

Rail Participants

Rail operators

There are approximately 80 organisations operating railways and tramways in New Zealand. They can be classified into three broad groups:

- *Network operators* – larger operators with extensive route kilometres:
  – Toll NZ – rail freight operator; long-distance and Wellington urban rail passenger operator.
  – Connex New Zealand – Auckland urban rail passenger operator.
- *Industrial operators* – railways serving the needs of factories, stores, or other industrial facilities, usually on a localised site with connection to the rail network. There are currently 34 industrial railway operators.
- *Heritage and tourist/leisure operators* – usually operating on a short dedicated railway line or tramline, or making excursion trips on the main network. There are currently around 40 of these operators.

Government agencies

Ministry of Transport

The Ministry of Transport:

- advises government on transport policy across all modes, including rail policy and purchase advice
- administers relevant rail-related transport legislation
- monitors transport Crown entities.

The Treasury

The Treasury is responsible for providing financial oversight.

ONTRACK

ONTRACK:

- owns, manages, and operates the national rail network
- controls operations on the network (eg signalling and train control)
- controls access to the network, including the setting of TAC
- implements, co-ordinates, and maintains an approved safety system for the network
- manages rail land, property, and leases
- provides advice to Ministers.

Land Transport New Zealand

Under the LTMA, Land Transport New Zealand:

- allocates National Land Transport Fund (NLTF) funding to regional councils for passenger transport and the purchase and co-funding of new infrastructure or operations relating to the use of rail for the movement of freight.

The Director of Land Transport:

- approves, as the safety regulator, rail licence holders' safety systems (under the Railways Act 2005, Land Transport New Zealand will license a wider range of railway industry participants)
- monitors rail safety across the national rail network
- provides assurance to the Government that rail organisations are operating safely.

Transport Accident Investigation Commission (TAIC)

The TAIC investigates significant air, maritime, and rail accidents and incidents for the purpose of determining circumstances and causes, and makes safety recommendations with a view to avoiding similar occurrences in the future.

Other government agencies

A number of other government agencies have responsibilities in respect of rail: for example, the Ministry of Health, the Ministry of Civil Defence and Emergency Management, the New Zealand Police, and the Department of Labour (Occupational Health and Safety).

Local government

Regional councils

The regional councils:

- prepare regional land transport strategies
- chair regional land transport committees
- issue air and water discharge consents under the Resource Management Act 1991
- (in Wellington) contract passenger rail services and infrastructure improvements, own new urban passenger rolling stock and stations, and contribute ratepayer funding for these services.

Territorial authorities

These authorities:

- fund and contract improvements to railway stations and associated facilities
- issue land use consents under the Resource Management Act 1991
- inspect their district regularly for nuisances, offensive conditions or conditions likely to injure health, and take action to abate them (eg where litter around railway stations may attract vermin).

Auckland Regional Transport Network Limited (ARTNL)

ARTNL is responsible for:

- contracting upgrades and maintenance for Auckland passenger railway stations
- managing the Britomart terminal and holding the lease for the other Auckland suburban railway stations.

Auckland Regional Transport Authority (ARTA)

ARTA:

- contracts passenger rail services and some infrastructure improvements on behalf of the Auckland Regional Council
- specifies required performance outcomes (eg required passenger capacity for the Auckland rail system), including requirements for significant infrastructure upgrades.

Unions

Rail and Maritime Transport Union

The union represents members within ONTRACK, Toll NZ, and Connex.

New Zealand Council of Trade Unions

The CTU represents the interests of transport sector workers.

Rail Funding

A comprehensive rail funding policy will be developed following the release of this Strategy. Current funding arrangements are:

Crown funding

The Crown funds national rail infrastructure through:

- appropriations to ONTRACK for rail projects justified on public policy grounds (Ministers determine the level and direction of funding, with advice from the Ministry of Transport)
- loans for commercial projects and property development to promote use of rail.

Funding for passenger services

Long-distance passenger rail services presently receive no central or local government subsidy. Urban passenger rail (Auckland and Wellington at present) is funded by regional councils[1] from rates etc; Land Transport New Zealand funds from the NLTF; and additional Crown contributions for capital improvements (rolling stock and infrastructure).

Land Transport New Zealand funding

Land Transport New Zealand funds:

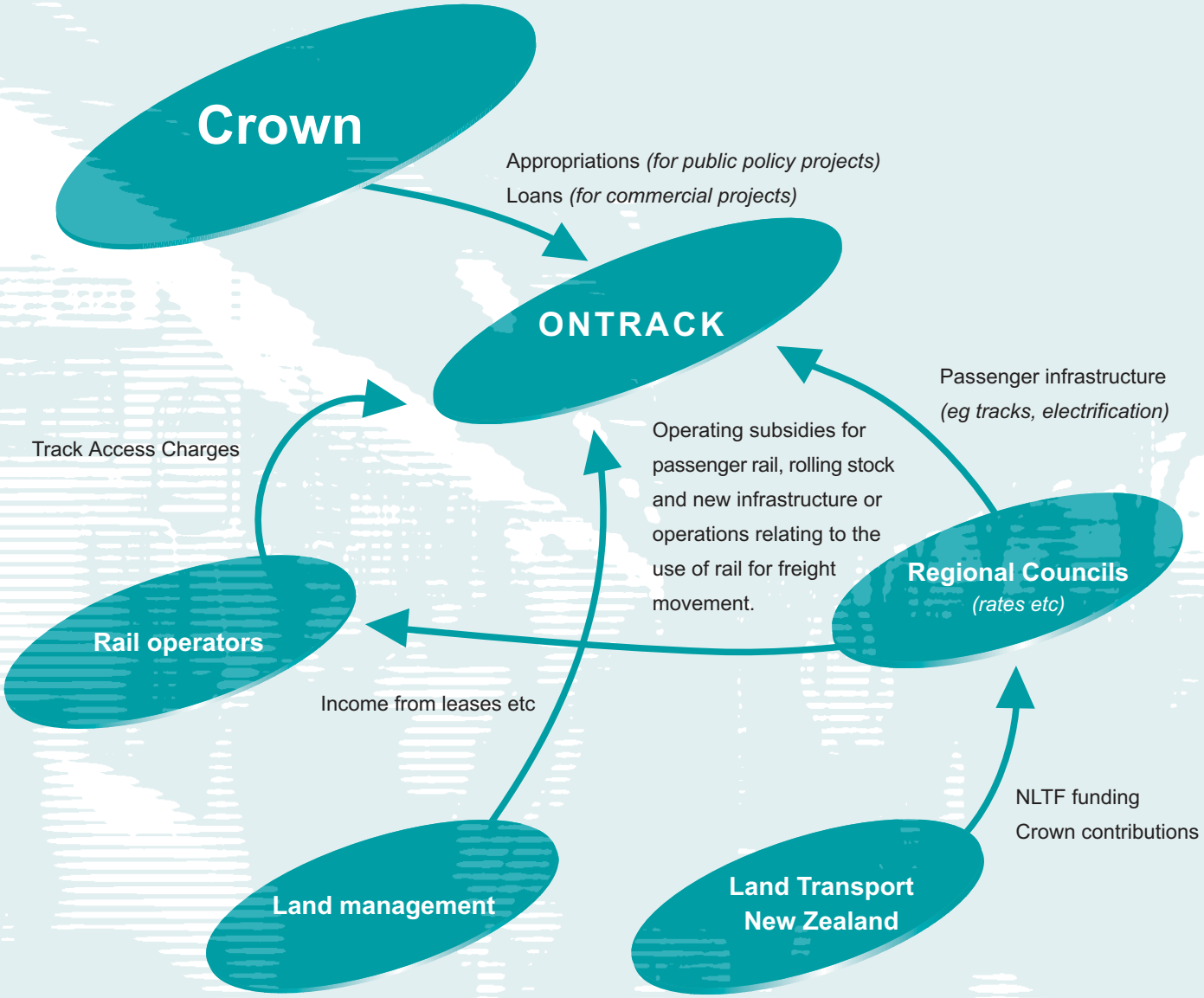
- subsidies to operators for urban rail passenger services
- rolling stock for urban rail passenger transport
- fixed urban rail passenger infrastructure (tracks)
- purchase and co-funding of new infrastructure or operations relating to the use of rail for the movement of freight.

Local government funding

Regional councils contribute towards the subsidy cost for contracted urban passenger rail services through rates and other council revenue.

[1] Any reference to regional councils in this document includes the Auckland Regional Transport Authority and excludes the Auckland Regional Council.

Rail funding: Organisations, funding streams and purposes



STRATEGIC DIRECTIONS TO 2015

Strategy Overview

Objectives	Priorities	Key initiatives
NZTS: Assisting Economic Development *National Rail Strategy*: To enhance rail's contribution to sustainable economic development	• Upgrade the national rail network. • Improve rail's contribution to regional development. • Encourage more freight to be carried by rail. • Optimise use of the rail network within the wider transport network.	– Government purchase of rail network. – Retain existing rail network. – Government investment of $200 million to restore and upgrade network. – Investigate development of the network. – Operation of an efficient and safe ONTRACK. – Contribute to integration between rail and other networks. – Investigate options for better incorporating costs of transport modes into the pricing of the transport system.
NZTS: Assisting Safety and Personal Security *National Rail Strategy*: To improve rail safety and personal security	• Continue to improve the safety and personal security levels of the rail system.	– Enhanced rail safety regime (Railways Act 2005). – Develop a rail safety strategy. – Develop effective and efficient interventions to improve safety. – Improve the safety and personal security of rail users.
NZTS: Improving Access and Mobility *National Rail Strategy*: To maintain and develop access to rail passenger services	• Encourage more use of urban rail passenger services as part of the public transport network.	– Funding assistance to develop urban rail passenger services and infrastructure. – Investigate options for better incorporating the social costs and benefits of transport modes into the pricing of the transport system.
NZTS: Protecting and Promoting Public Health *National Rail Strategy*: To promote positive health outcomes through the enhanced use of rail	• Ensure the public health impacts of rail transport are incorporated into transport planning and decision-making.	– Encourage modal shift within a sustainable development context. – Investigate options for better incorporating public health costs and benefits into pricing of the transport system. – Investigate electrification of Auckland urban rail network.
NZTS: Ensuring Environmental Sustainability *National Rail Strategy*: To enhance rail's contribution to an energy efficient and environmentally sustainable land transport system	• Ensure transport choices take into account the environmental benefits that rail can provide.	– Encourage modal shift from road to rail where appropriate. – Investigate options for better incorporating environmental costs and benefits into the pricing of the transport system. – Encourage better integration of services where practicable.

Assisting Economic Development

Objective: To enhance rail's contribution to sustainable economic development

An efficient and effective rail system is of critical importance to New Zealand's economic development; for example, around 25 percent of all inter-city freight is currently carried by rail. However, the full potential of the rail network has not been realised due to a number of factors including under-investment over several years.

Crown ownership of the rail infrastructure provides the Government with the opportunity to ensure New Zealand's rail network is maintained and developed to encourage more use of rail within a broadly commercial framework. This is particularly important in areas of regional growth or under-provision of transport infrastructure.

Data provided by the Energy Efficiency Conservation Authority (EECA) for 2003 gives total freight movements of 36.2 billion tonne kilometres (t km), split 64% road, 25% coastal shipping and 11% rail. Adjusting to a land transport basis gives a total of 27.1 billion t km, with rail carrying 14% or 3.9 billion t km.

In the year to June 2003 Toll NZ carried 14.8 million tonnes of freight for 3.86 billion t km, or an average haul distance of 260 km.

Priority: Upgrade the national rail network

While a 2002 review of parts of the rail infrastructure concluded that the rail network is generally 'fit for purpose'[2] for current freight operations, there is a need for investment to address a serious backlog of deferred maintenance. This is constraining the ability of rail to compete for freight business in some areas.

In the medium to long term, economic growth, coupled with any increase in rail's market share, is likely to create a need for investment in the rail infrastructure to allow for changing and growing freight and urban passenger demands.

Possible improvements include upgrading and strengthening tracks and bridges, lowering tunnel floors to allow 9'6" (2.9 m) containers to be carried, installing and lengthening crossing loops, improved signalling, and re-routing of circuitous and steep sections of track that restrict speed or load. Such changes would enable the rail operator to use locomotives more efficiently, or gain greater efficiencies if axle loadings can be increased, subject to ONTRACK's codes and standards for the network.

Beyond the initial Crown commitment to network investment, the capital funding for developments with commercial benefits will be recovered or partially recovered from users through TAC. Any improvements to the existing network, where Toll NZ has exclusive use rights, will be subject to agreement with Toll NZ that it will make use of the enhancement.

Priority: Improve rail's contribution to regional development

Transport is a critical factor in regional growth and development. Many industries identified in regional development strategies, such as forestry, place very high levels of demand on transport services and infrastructure. Growth opportunities have also been identified in the coal and dairy sectors, and in container traffic. Developing the rail network can support regional

[2] Halliburton KBR review undertaken for the then Land Transport Safety Authority. A 2003 review of the Midland line concluded that this line was fit for purpose only in the short term.

development by providing the infrastructure needed to access economic opportunities, and will also help to ensure that new or existing freight does not transfer from rail to road.

There may be scope to fund urban transport infrastructure by capturing a proportion of the increase in land values generated by the new infrastructure. A UK example is London's Jubilee Line extension, where the increase in land value was nearly four times the project cost.

Priority: Encourage more freight to be carried by rail

A key issue for New Zealand is accommodating anticipated growth in freight volumes, which are expected to expand at a faster rate than overall economic growth. Much of New Zealand's extensive rail network is relatively under-utilised, and substantial increases in the amount of freight carried on many lines can be achieved without having to develop significant new infrastructure. By contrast, some parts of the roading network would need to be expanded to handle substantial increases in traffic volumes.

There is potential to significantly increase the rail transport share of existing freight volumes. A proportion of freight traffic will be unsuited to rail, where the origins and destinations are not served by rail lines, or distances are too short and volumes too small.

Priority: Optimise the use, of the rail network within the wider transport network

The LTMA provides the framework for an approach to funding and management of land transport as a whole, rather than focusing on roads and motor vehicles. A more integrated approach to long-term transport funding, planning, and operations will help ensure the best use is made of the overall transport network. For example, increased capacity in one mode such as rail could be used to reduce the cost of providing additional capacity on the roading network.

Increased integration of transport modes includes the development of innovative and flexible approaches, for example park and ride facilities, ticketing and timetabling integrated between passenger transport modes, and 'inland ports' or transport hubs that can help ensure that passengers and freight can transition easily and conveniently between transport modes.

Rail stations can be natural focal points for commercial, industrial, or residential development, illustrating that integrating land-use planning with rail infrastructure operation planning is also important. Improving integration will require regular consultation with regional councils, industry, and other parties, and consideration of other land transport plans and regional development strategies.

In 2002 the Ministry of Transport commissioned an *Investigation into Surface Transport Costs and Charges* (STCC). This study examined the relationship between the costs (including economic, social, and environmental costs) of the use of road and rail transport and the payments users make for using each mode. The findings of the study were that:

- the charges paid by road and rail users do not cover the costs of those networks, and that some costs are not paid by anyone at all

- rail users pay a higher proportion of their costs than road users
- users of urban local roads pay a lower proportion of costs than users of rural roads
- in many cases the costs of remedying a problem (eg congestion) are much lower than the cost of the problem itself.

These findings will assist government in making decisions on the absolute and relative levels of charges for the use of road and rail networks.

Key initiatives in assisting economic development

Government purchase of network

The Government's decision to purchase the rail network is intended to secure it as a vital piece of infrastructure in the national interest.

Retain existing rail network

The Government intends to retain the existing rail network to preserve options for under-utilised lines where it is likely there will be more traffic in the future.

- ONTRACK will be required to:
  – develop a strategy on retention or disposal of unused rail corridors
  – maintain the long-term serviceability of the network that is currently in use
  – where there is a reasonable prospect of future traffic, maintain under-utilised track to an appropriate standard.

Government investment of $200 million to restore and upgrade network

The Government will invest in the network to replace life-expired infrastructure and improve the capacity of the network. A key priority will be to bring the network up to the standard necessary to maintain and improve market share for freight and passenger services.

- The Government is investing $200 million in the network over five years, which will be split between: $100 million for network enhancements and $100 million for like-for-like replacement of worn-out assets such as track and sleepers. This investment will not be recovered from rail operators. Beyond this initial investment, government will expect the costs of maintaining and developing the track to be recovered from rail operators.

Investigate development of the network

There are rail projects in most regions that have high local or wider regional importance. The Government will investigate increasing the capacity of the rail network in order to maintain and improve the market share of rail, and improve the capability of the railway system as part of New Zealand's transport infrastructure.

- ONTRACK will prepare a 10-year Rail Network Development Plan as soon as is practicable, setting out its proposals for developing the network. Possible areas for future development include:
  – a new branch line to the port at Marsden Point
  – a new branch line at Clandeboye (to serve the dairy factory directly)
  – a short spur line to service the dairy factory at Edendale.

- ONTRACK and the Ministry of Transport will consult with rail operators, businesses, regional councils, territorial authorities, and communities to explore the feasibility of other proposals for new developments.
- The costs of projects that are commercially viable will be recovered from operators through TAC. The Government may partly or wholly fund projects that provide benefits to the general public. Some new developments may be funded from the Government's initial $100 million funding for network enhancement.

Operation of an efficient and safe ONTRACK

ONTRACK's objectives will include running an efficient and safe operation. ONTRACK will:

- agree service levels and performance indicators covering reliability and timeliness of operations with Toll NZ by 30 June 2005
- agree performance indicators with any additional operators granted access rights
- prepare a 10-year Rail Development Programme for maintaining and developing the national rail network as soon as practicable.

Contribute to integration between rail and other networks

- ONTRACK's objective, under its legislation, will be to contribute to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system. The LTMA has similar requirements for Land Transport New Zealand and Transit New Zealand.
- Under the LTMA, approved organisations must consult on the development of their land transport programmes.
- In preparing the Rail Network Development Plan, ONTRACK will be required to take into account any national and relevant regional land transport strategies.
- Regional councils may contract new infrastructure or operations focused on transferring road freight to other transport modes, including rail, in order to contribute to the objectives of the NZTS. Land Transport New Zealand provides funding assistance for this from the NLTF as above.
- Regional councils may also contract activities to develop inter-modal links such as 'park and ride' facilities or passenger transport interchanges, through funding from Land Transport New Zealand as above.

Investigate options for better incorporating costs of transport modes into the pricing of the transport system

- The findings of the STCC study provide information as a basis for the Ministry of Transport to provide advice to the Government on pricing policies leading to sustainable road and rail networks.
- The Ministry of Transport will investigate the possibility of land value capture in New Zealand.

Assisting Safety and Personal Security

Objective: To improve rail safety and personal security

While rail remains the safest form of land transport, there can be no room for complacency. Recent reports[3] into rail safety have made it clear that New Zealand's rail safety performance should be improved to international best practice standards.

Policies aimed at promoting a modal shift from road to rail may contribute to the overall transport goal of improving safety due to rail's comparatively better safety performance. Greater use of rail, however, may result in an increased number of rail-related accidents.

Land Transport New Zealand will have a continuing role as regulator, to ensure that operators fulfil their safety responsibilities through a process of oversight and monitoring.

Personal security includes concerns about crime and harassment in and around stations and on trains, and also vandalism and theft of cars from parking facilities at stations. Though reported crime statistics are low, concerns about crime and personal security can act as barriers to rail patronage.

Priority: Continue to improve the safety and personal security levels of the rail system

Safety

Rail-related accidents[4] fall into three very different categories requiring very different responses: level crossing, trespass and route crime, and operational accidents. These accidents can involve rail employees, the travelling public, or trespassers. Table 1 (next page) shows that for the years 1998 to 2004, there have been on average 20 level crossing accidents resulting in death or injury, 24 accidents related to trespass and route crime, and 26 accidents relating to rail operations each year. These accidents resulted in a total of 155 deaths, 108 serious injuries, and 302 minor injuries over the eight-year period (the number of injuries is higher than the total number of accidents since an accident can have more than one person injured[5]).

Level crossing accidents

Twenty-nine percent of all injury accidents on New Zealand's railways between 1998 and 2004 were associated with level crossings. ONTRACK, Land Transport New Zealand, road-controlling authorities, train operators, private land-owners, the Police, and motor vehicle drivers all have a role to play in reducing level crossing accidents. These accidents may be reduced through such means as improving the general road environment, and providing preventive and protective solutions at level crossings. Road user compliance with the law is also critical.

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[3] The Wilson Report 2000 and the Halliburton Report 2002.
[4] An 'accident' refers to an event resulting in death or injury.
[5] The focus is on accidents rather than injuries since the number of injuries per accident is typically random, thus total injuries can vary widely from year to year. The number of accidents provides a more accurate representation of the level of safety on the railway

Table 1: Total number of accidents on New Zealand's railways 1998–2004 by accident type

Accident type	Fatal	Serious	Minor	Total	Annual average
Level crossing	55	30	53	138	20
Route crime and trespass	86	20	59	165	24
Rail operations	11	39	131	181	26
Total	**152**	**89**	**243**	**484**	

Source: Ministry of Transport

Route crime and trespass accidents

Both route crime and trespass injury accidents are primarily caused by members of the public committing illegal acts such as being on the tracks without authorisation, throwing objects at trains, or placing objects on tracks that can derail trains. In many cases these acts are outside the direct control of rail operators. Suicide and substance-related impairment are thought to be significant factors in trespass accidents.

Thirty-four percent of injury accidents on New Zealand's railways between 1998 and 2004 were associated with route crime and trespass. Land Transport New Zealand (safety), ONTRACK, train operators, road-controlling authorities, the Police, the public, and station owners have a role in reducing such accidents – for example, through environmental design; by ensuring trains are conspicuous (by sounding horns and ensuring lights are clearly visible); managing safe pedestrian access over the tracks; making efforts to prevent access to tracks; and educating the public about safety and security issues associated with railways.

Route crime and trespass injury accidents can impinge on the personal security and safety of rail staff and passengers through the risk of injury from incidents of rock-throwing and other acts of route crime. Further, accidents and suicide attempts have an enormous psychological impact on locomotive drivers and others involved in such incidents, particularly where there is a fatality or serious injury.

Operational accidents

Thirty-seven percent of injury accidents on New Zealand's railways from 1998 to 2004 were associated with operational accidents such as shunting, collisions, and derailments, and rail passenger accidents. While rare, some types of operational accidents (eg head-on collisions) have the potential to be extremely serious. Land Transport New Zealand, ONTRACK, rail operators, and rail employees all have a role to play in reducing the number of accidents in this area and maintaining a rail safety culture.

Personal security

Good station and subway design, adequate lighting, cleanliness, attractive stations, and clean and well-maintained trains can contribute to both the perception and the reality of personal security. Enhanced security for cars in station car parks is also likely to encourage commuters to 'park and ride'.

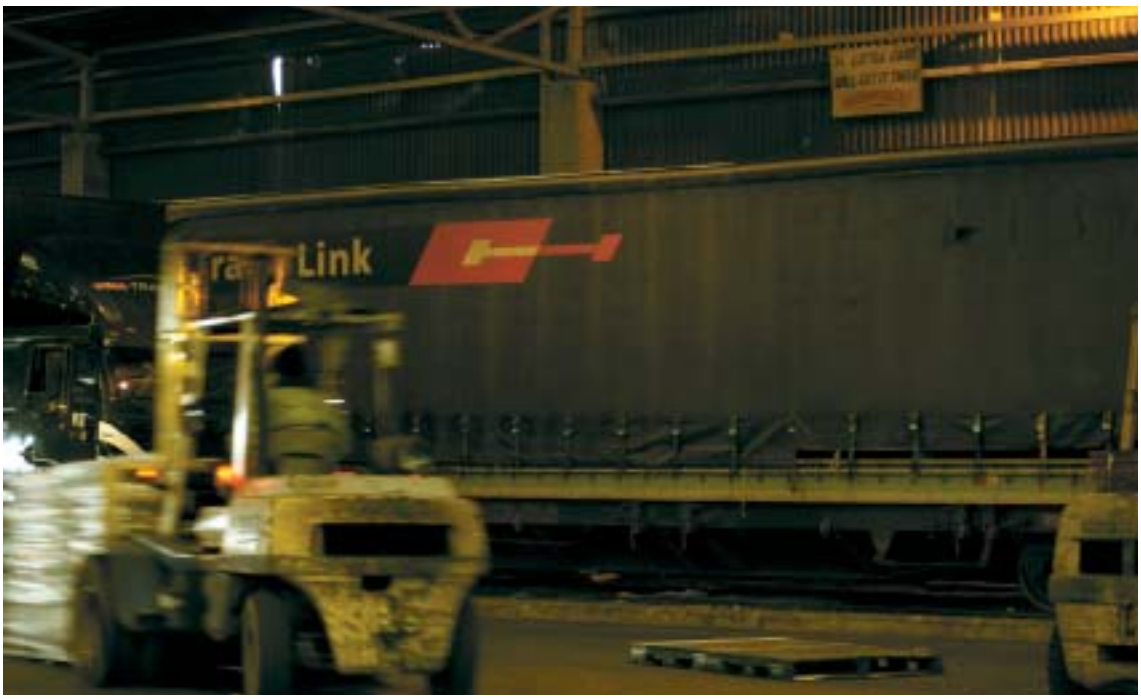
Addressing personal security issues on trains and at stations is primarily the responsibility of station owners/managers and rail passenger operators, the Police, and the public.

Emergency management

It is important to ensure that key rail infrastructure, passengers, staff, and freight are not unreasonably at risk from accidents, whether due to rail system failures, spillage of hazardous goods, or natural disasters such as slips, flooding, or earthquakes. Appropriate risk management is needed to ensure that civil defence emergency management requirements are met.

Annually more than 200,000 tonnes of hazardous goods are moved by rail. A number of government agencies (including the Ministry of Health, the Police, Land Transport New Zealand, and the Department of Labour) have responsibilities in terms of minimising the risk to passengers, rail staff, and communities alongside rail corridors, and to other goods travelling with these products.

Rail-related terrorist incidents are possible. Minimising the risk of terrorist activity will require a co-ordinated national and international approach, and appropriate risk management by rail participants.



Key initiatives in assisting safety and personal security

Enhanced rail safety regime (Railways Act 2005)

- The Railways Act 2005 implements an enhanced rail safety regime, addressing the problems identified in recent reports into rail safety and changes in the business models over time. The Act clearly states the safety duties of all rail participants and extends the licensing regime to include access providers.

Develop a Rail Safety Strategy

- The Ministry of Transport is leading the development of a *Rail Safety Strategy,* due to be completed during 2005.
- The Ministry of Transport will develop rail safety targets in consultation with the rail industry.
- The *Rail Safety Strategy* will be consistent with the *New Zealand Injury Prevention Strategy* and the *New Zealand Crime Reduction Strategy.*

Develop effective and efficient interventions to improve safety

- Level crossing safety is a priority area for action because of the fatal and injury accidents associated with them. A Road-Rail Level Crossing Working Group has been established and is working to identify and facilitate effective measures to improve safety at level crossings. It includes Land Transport New Zealand, Transit New Zealand, Local Government New Zealand, Toll NZ, and the Federation of Rail Organisations of New Zealand.
- In 2004, the then Land Transport Safety Authority undertook research into trespasser accidents, which is being used to inform the development of the *Rail Safety Strategy.*
- Work is under way in Auckland to update the 'Rail Safe' package that was used in schools.

Improve the safety and personal security of rail users

- The Government, directly and through Land Transport New Zealand, has provided funding for upgrading Auckland and Wellington railway stations.
- Appropriate national and international agencies will continue to monitor the terrorist threat and develop effective anti-terrorism measures.
- The Ministry of Transport is represented on the National Taskforce for reducing violence in public places, and through this forum will consider the need for a specific *Personal Security Strategy.*
- The Ministry of Transport will continue to lead the civil defence and emergency management transport cluster.

Other initiatives

- Government investment to upgrade the rail network is intended, among other goals, to increase its overall safety.
- Initiatives that increase rail patronage and activity in and around stations may also reduce personal security concerns.
- The *New Zealand Injury Prevention Strategy* provides an overarching framework for the injury prevention activities of government agencies, non-government organisations, communities, and individuals, covering issues such as suicide.
- *The Crime Reduction Strategy* addresses concerns about personal security and crime in public places as part of its general violence strategy.
- The Ministry of Civil Defence and Emergency Management works with relevant agencies to ensure civil defence emergency management requirements are met.

Improving Access and Mobility

Objective: To maintain and develop access to rail passenger services

For a variety of reasons, including geography, population, and social factors, land-based passenger transport use is low in New Zealand. The widespread use of private cars and constraints on roading capacity have resulted in congestion in some cities, particularly during peak periods. This has environmental, social, health, and economic impacts.

Urban rail passenger transport

Urban passenger rail services operate in the Auckland and Wellington regions. Land Transport New Zealand, in partnership with the Wellington and Auckland Regional Councils, provides operating subsidies for these. There is interest in the development of urban rail networks in other regions (for example, Hamilton and Christchurch). Land Transport New Zealand could consider such services for funding where they are supported by a sound case and local commitment.

Long-distance passenger rail

Toll NZ operates some long-distance passenger services, primarily on scenic routes for the tourist and leisure markets. Some smaller operators run scheduled services and/or excursion trips on the national network. Long-distance rail passenger services are not subsidised.

Regional councils could contract and subsidise non-viable new or additional long-distance passenger services where such services are seen as essential to improving access in a regional area.

Heritage and tourist/leisure operators

Heritage operators contribute to goals that are wider than NZTS by restoring and maintaining locomotives and carriages from New Zealand's past in operating condition.

Priority: Encourage more use of urban rail passenger services as part of the public transport network

Greater use of passenger transport, including urban rail services (at present Auckland and Wellington only) can enhance access and mobility and help to reduce road congestion on busy corridors. A particular aim is to attract peak-hour car drivers onto rail. Removing a proportion of cars from congested traffic can have a disproportionately beneficial effect on congestion because of the non-linear nature of traffic flow.

Overall, public transport use is low in New Zealand: only 2.2% of trips are made by bus and around 0.25% made by rail.

In Wellington a third of commuter trips to the CBD are made by passenger transport: 17% bus and 16% rail. The average length of a rail journey is 25 km, compared with 7 km by bus, and annual passenger kilometres are 250 million, compared with 147 million by bus.

International experience has indicated that increasing rail patronage will require:

- adequate infrastructure and high quality rolling stock
- affordable, reliable, and frequent services
- user-friendly, safe and secure stations, and good access to stations (including 'park and ride' facilities)
- addressing any issues of community severance (where the railway separates the community through a lack of suitable crossing points)
- better integration of rail services with bus and taxi services and walking and cycling networks.

The Government influences development of urban rail passenger services by providing funding assistance through Land Transport New Zealand to regional councils, which have the primary responsibility for contracting and developing urban passenger services.

The relative cost of alternatives (for example, private cars or buses) is also important. Pricing policies, such as user fees and charges, including parking charges, can influence this. Travel demand management measures directed at car drivers are likely to be required. It is important to avoid simply shifting bus users or those who walk or cycle onto rail services, and to target rail patronage growth at private car users.

Any negative impacts that may arise from increasing the number and/or frequency of train services will also need to be identified and managed. This could include increased noise levels, and road congestion at level crossings.

The Human Rights Commission's *Inquiry into Accessible Public Land Transport* identifies issues with access to passenger services for the transport-impaired -– those who have difficulty using, or who are unable to use, public transport services because of a disability. Improving access to urban rail passenger services for the transport-impaired will require an incremental, co-ordinated approach.

Key initiatives in improving access and mobility

Funding assistance to develop urban passenger rail services and infrastructure

The Government is providing funding assistance, directly and through Land Transport New Zealand, to develop urban passenger rail services in Wellington and Auckland, by providing:

- 60% of the cost of operating subsidies to passenger transport services
- funding assistance for improvements to and replacement of rolling stock
- funding support for infrastructure upgrades to increase the capacity and reliability of their urban passenger networks.
- funding assistance for activities that focus on transferring car commuters to rail or bus services, such as integrated ticketing and 'park and ride' facilities.

Investigate options for better incorporating the social costs and benefits of transport modes into pricing of the transport system

- The findings of the STCC study provide information which will form a basis for the Ministry of Transport to provide advice on future land transport charges.

Other initiatives

- The Ministry of Transport will respond to the issues raised by the Human Rights Commission's *Inquiry into Accessible Public Land Transport.*

Protecting and Promoting Public Health

Objective: To promote positive health outcomes through the enhanced use of rail.

The NZTS seeks to improve the public health impacts of transport, and to promote shifts to transport modes with fewer negative impacts on health. Transport-related public health issues include vehicle emissions, water run-off, vehicle noise and vibration, and a lack of exercise associated with low levels of walking and cycling.

Vehicle emissions during peak periods in urban areas are the primary cause of land transport-related public health problems.

A 1999 inventory of air emissions commissioned by the Ministry of Transport *(Impacts of Rail Transport on Local Air Quality)* found that the majority of air emissions from rail occur in rural regions at relatively infrequent intervals, and the contribution made to urban emissions from rail is very low. As a result, reducing harmful emissions from road vehicles is a higher priority. However, managing the potential negative health impacts of rail emissions from areas of concentrated rail activity, such as rail yards, is also important.

The 1999 inventory of rail emissions found that particulate matter emissions from rail are 3% of total vehicle emissions.

Carbon monoxide and hydrocarbons emissions are 0.2% and 0.5% respectively of total vehicle emissions. Oxides of nitrogen emissions from rail are 10% of total vehicle emissions.

Noise exposure from rail, including vibration, can also impact on community health and well-being (eg through sleep disturbance). The health impacts of noise from rail at the local level will also need to be assessed and managed.

Priority: Ensure the public health impacts of rail transport are incorporated into transport planning and decision-making

Transport choices can be influenced by policies that require transport users to take responsibility for the health costs imposed on society by their choice of transport mode.

As the public health impacts of pollution from rail are relatively small compared to roads, policies aimed at modal shift – from road to rail – are likely to make an effective contribution to improving transport-related public health outcomes. In particular, initiatives aimed at encouraging freight to transfer from road to rail, and greater use of passenger transport (including urban passenger rail services), relative to single occupancy car travel, may reduce overall transport-related health problems.

Journeys by passenger transport usually include a substantially greater walking component than private car use, and so contribute to public health through encouraging regular exercise. Where possible, development of passenger rail services should also encourage active transport modes such as walking and cycling. Examples are bike stands at stations and capacity for bikes on trains, and addressing barriers to access. The Ministry of Transport has released a walking and cycling strategy titled *Getting There – on foot, by cycle,* which proposes a strategic framework aimed at increasing walking and cycling in New Zealand.

In certain cases (subject to requirements to offer back to original owners) rail land no longer required for rail purposes could be made available for long distance walking and cycling networks. The Central Otago Rail Trail on the route of the Otago Central railway line is an example of where this has occurred following the closure of the line in 1990. In another case, in Christchurch, space for a cycle route has been found on a working rail corridor.

Electrification

Electrification can provide environmental and public health benefits, particularly in urban areas. At present the Wellington urban network is electrified to Paraparaumu and Upper Hutt using a 1.5 kV DC electric system. Extension of electrification to Waikanae is under consideration. The North Island Main Trunk line from Palmerston North to Hamilton is also electrified with a 25 kV AC system. A study of electrification of the Auckland urban network (from Britomart to Papakura on the North Island Main Trunk, and on the Western and Isthmus lines) is in progress.

Key initiatives in protecting and promoting public health

Encourage modal shift within a sustainable development context

The Government is encouraging modal shift by:

- providing funding support for the development of urban rail passenger services as part of the passenger transport network
- providing funding to upgrade and develop the national rail network to improve its ability to carry freight, where appropriate
- the LTMA requiring Land Transport New Zealand to allocate funding to take account of sustainability goals, including public health issues.

Investigate options for better incorporating public health costs and benefits into the pricing of the transport system

- The findings of the STCC study provide information as a basis for the Ministry of Transport to provide advice on future land transport charges.

Investigate electrification of the Auckland urban rail network

- Depending on the outcome of the Auckland *Electric Traction Evaluation Study,* electrification of the Auckland urban rail network may be worthwhile, partly to reduce emissions from passenger trains in the region, particularly with the planned growth in service frequency.

Other Initiatives

Introduction of new standards for diesel fuel

- The Government has approved new fuel specifications that substantially reduce the level of sulphur in diesel fuel. The first stage was introduced in August 2004 and the second stage will be introduced in January 2006. These specifications will significantly reduce the level of particulates in diesel emissions, reducing the negative health effects from diesel locomotives.

Ensuring Environmental Sustainability

Objective: To enhance rail's contribution to an energy efficient and environmentally sustainable land transport system.

The NZTS seeks to achieve a more energy-efficient and environmentally sustainable transport system by reducing negative environmental impacts and using resources more efficiently. This section considers the wider impacts of air, water, and other pollutants as they affect the natural, cultural, and built environments.

The negative environmental impacts associated with rail transport are small when compared to road. Roads are therefore the key focus of work in this area. However, addressing the environmental impacts of rail transport is also important, and policies and standards to reduce the negative environmental impacts of rail may also be developed. For example, as well as diesel emission standards, there is potential to reduce the carbon intensity of rail through innovations such as regenerative braking systems on electrified railways.

EECA data gives the following average energy efficiency figures for New Zealand surface transport in 2003. The figures are the average energy (in Watt hours) needed to carry one passenger or one tonne of freight for one kilometre.

Rail passenger:	
- Overall	440 W h/pass km
- Wellington	90 W h/pass km*
Bus	220 W h/pass km
Car	540 W h/pass km
Rail freight	200 W h/tonne km
Truck	810 W h/tonne km
Coastal Shipping	100 W h/tonne km

**The Wellington data is for 1996.*

Environmental impacts at the local level will still need to be assessed and managed. The development of the rail network will also need to take broader environmental impacts into account, including the protection of structures and sites with heritage values, where practicable.

Priority: Ensure transport choices take into account the environmental benefits that rail can provide

As the environmental impacts of rail are small compared to those generated by road users, policies aimed at modal shift, including from road to rail, where appropriate, are likely to make the most effective contribution towards achieving environmental sustainability objectives at a regional or national level. Initiatives that encourage freight to transfer from road to rail (where practicable) and encourage greater use of passenger transport, especially urban rail services, will contribute towards achieving a more sustainable transport system. Transport choices can also be influenced by policies that require transport users and providers to take responsibility for the environmental costs of transport modes.

Key initiatives in ensuring environmental sustainability

Encourage sustainable modal shift from road to rail where appropriate

The Government will encourage more use of urban rail passenger services as part of the passenger transport network by:

- providing funding assistance from the Crown and the NLTF, through Land Transport New Zealand, in partnership with regional councils, to develop and operate urban rail passenger services.

The Government will encourage the transfer of freight from road to rail, where appropriate:

- Government investment to improve the rail infrastructure can bring environmental benefits, by allowing more efficient use of locomotives with corresponding energy gains.
- The LTMA requires Land Transport New Zealand to allocate funding to take account of sustainability goals, including environmental sustainability.

Investigate options for better incorporating environmental costs and benefits into the pricing of the transport system

- The findings of the STCC study provide information as a basis for the Ministry of Transport to provide advice on future land transport charges.

Encouraging better integration of services where practicable

ONTRACK and local authorities will investigate options for encouraging better integration of rail with other services, including options for:

- encouraging port, road, and rail links for freight: this may include, for example, improving linkages in and out of ports or providing access to rail sidings for inter-modal transfers
- promoting the integration of rail with all other travel modes, including walking and cycling, for example, through cycle storage, ‘park and ride’ facilities, and improved integration of bus and train timetables
- the integration of land-use planning with rail infrastructure and operations planning, in consultation with the community and in consideration of the long-term community council planning process.

Assessing Progress

Table 2 sets out key results and indicative performance indicators that will allow progress towards achieving the Strategy's national rail objectives and key priorities to be assessed. The Ministry of Transport will develop final performance indicators, including baseline measures and, where practicable, the development of targets and timeframes for the level of change sought. Additional indicators may also be developed. To the extent practicable, all indicators will be SMART (specific, measurable, achievable, realistic, and timebound).

Regular monitoring and review will be undertaken to ensure progress is made. This will help to inform future development of the Strategy. Key results and performance indicators and the entire Strategy will be reviewed at intervals of not less than three years and not more than five years.

Responsibility for implementing the Strategy rests with a number of agencies across the government rail sector and will be reflected in their accountability, but more broadly it is a whole-of-government responsibility. The Ministry of Transport will have overall responsibility for leading monitoring and reviewing progress. The Ministry may also support regional councils in preparing their regional land transport strategies to ensure the priorities and initiatives contained in the Strategy are carried through to the regional level.

Table 2: Key results sought

Key results	Indicative performance indicators
• More freight carried by rail	• Increased tonnage • Increased tonne kilometres • Increase in rail's modal share
• More passengers carried on urban rail services	• Increased passenger trips • Increased passenger kilometres • Increase in modal share of trips and passenger kilometres relative to private car use
• Improved level of rail safety	• Reduction in injury accidents (note that the Rail Safety Strategy will develop specific indicators for each category of rail accident)

Appendix 1

NEW ZEALAND'S NATIONAL RAIL NETWORK


LEGEND
Passenger and Freight Line
Freight Only Line
Passenger Only Line
Cook Strait Crossing
N
0
50
100km
Picton
Blenheim
Westport
Ngakawau
MAIN NORTH LINE
Reefton
Kaikoura
Greymouth
Stillwater
Hokitika
Otira
MIDLAND LINE
CHRISTCHURCH
Rolleston
Lyttelton
Ashburton
TIMARU
Oamaru
MAIN SOUTH LINE
Palmerston
DUNEDIN
Otira
Gore
Balclutha
Invercargill
Bluff


64 CU.FT.