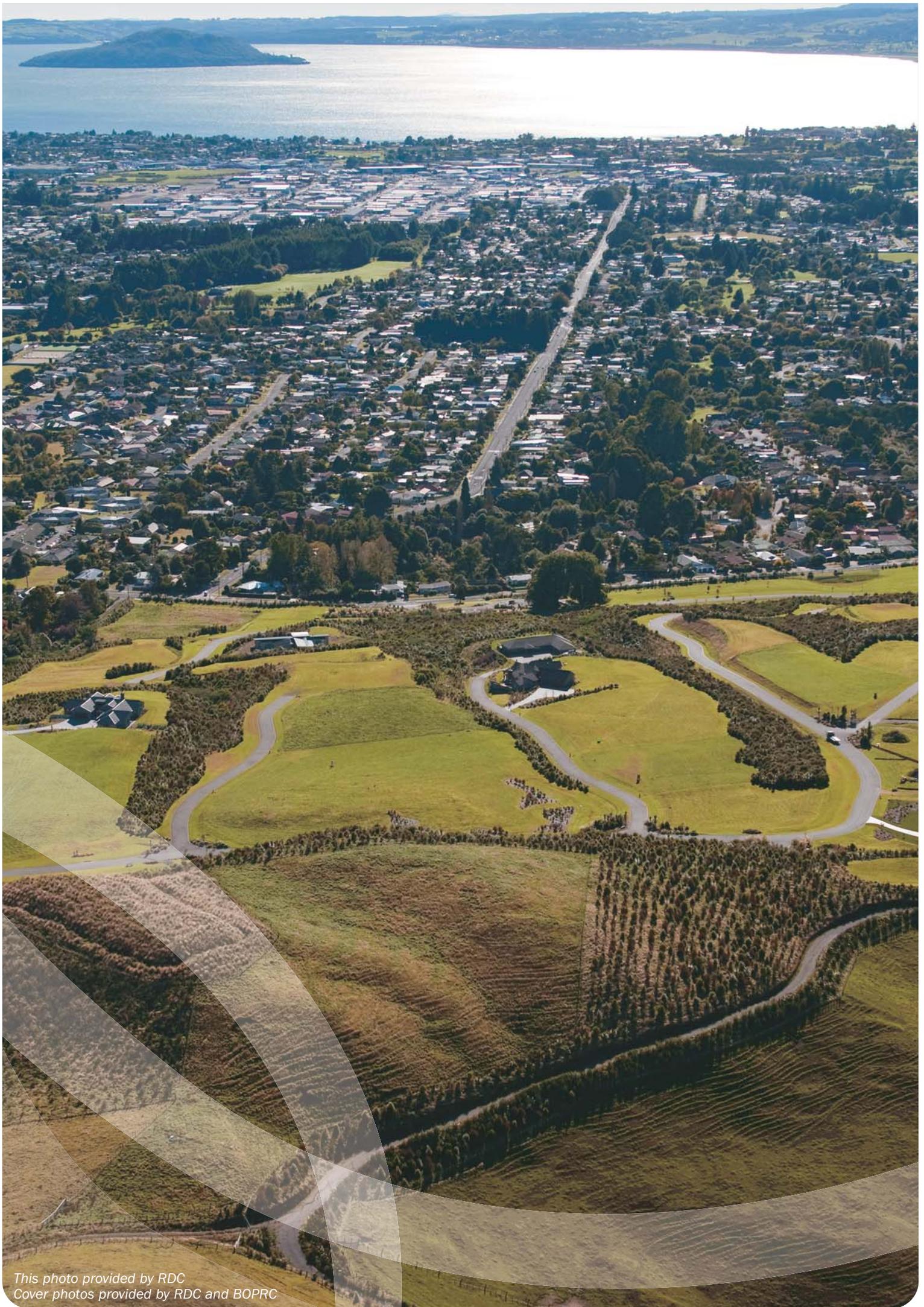




ROTORUA INTEGRATED NETWORK STRATEGY 2012-2042





*This photo provided by RDC
Cover photos provided by RDC and BOPRC*

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Rotorua Integrated Network Strategy

Purpose

The purpose of the Rotorua Integrated Network Strategy (RINS) is to guide and inform land transport programmes and future growth management planning.

This strategy will ensure that investment in the transport network is appropriately directed and help determine funding priority.

The Strategy:

- Defines the role of the Rotorua transport network and its contribution to the Upper North Island and New Zealand as a whole.
- Identifies the shape and form of the Rotorua transport network into the near future, identifying deficiencies and improvements.
- Supports and informs Rotorua District Council's District Plan with particular regard to supporting long-term economic drivers that underlie the district's growth.
- Guides better integration of land use and transport planning to achieve a safe, efficient and affordable transport system that supports economic and environmental outcomes for the district.
- Ensures the transport system provides for a range of travel choices and is developed in a way that makes best use of the existing network.

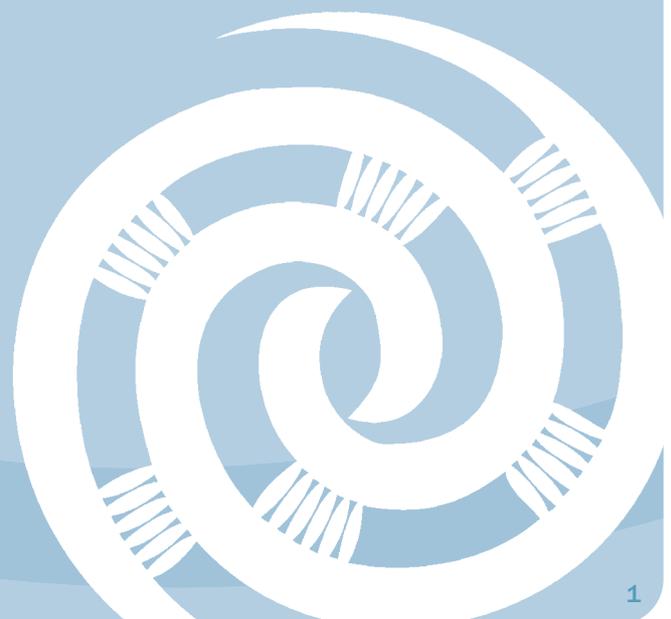
Opportunities for Rotorua's transport system are mainly related to economic growth and economic drivers - tourism and primary industry.

Opportunities include:

- Encouraging people into the city centre.
- Well planned integrated networks that meet demands while ensuring land use is appropriate.
- Using structure planning and the District Plan to support economic growth and optimise use and development of infrastructure.
- Improving important freight routes.
- Protecting the rail corridor for future transport use.
- Encouraging use of alternative modes of transport.
- Developing the National Cycleway (Te Ara Ahi).



Photo supplied by BOPRC



Outcomes Sought

The objective for the Rotorua Integrated Network Strategy is to support economic growth, safety and accessibility with an affordable, integrated, safe, responsive, and sustainable land transport system.

It's all about outcomes

The objective is derived from the outcomes sought at national, regional and local levels. In broad terms, the outcomes that RINS contributes to are:

- Integration
land use and transport
- Prosperity
efficiency and economic growth
- Safety
- Accessibility
- Environmental Sustainability

These symbols are used throughout this document to represent and highlight the outcomes sought. Larger symbols are used to illustrate where one outcome is locally more important than others.

RINS provides direction for future investment in the transport network that is consistent with NZTA's, RDC's and BOPRC's statutory obligations and functions. The strategy is consistent with, and supports, the implementation of national, regional and local level policies, strategies and plans. The legislation that directs RINS includes:

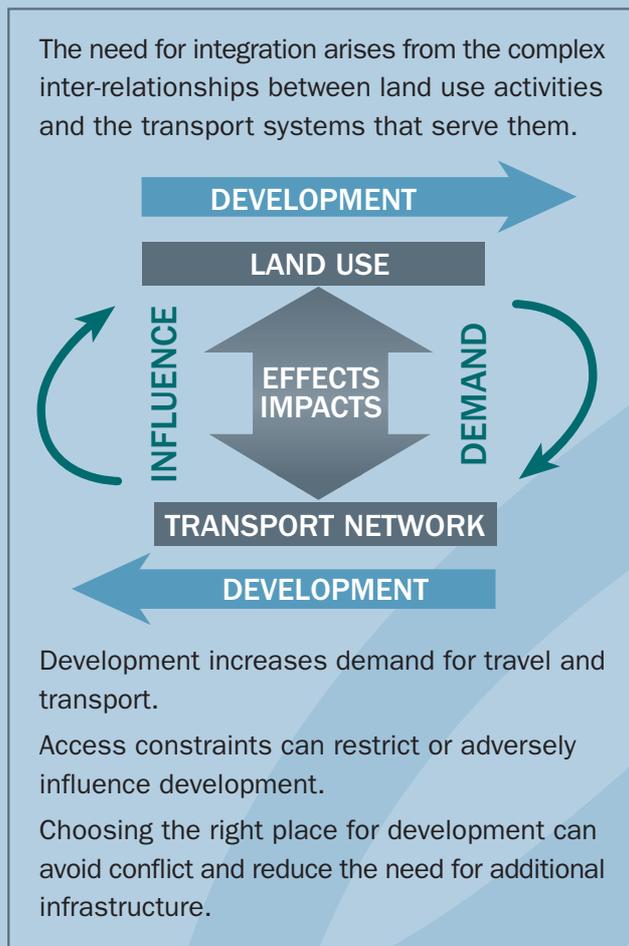
- Land Transport Management Act (LTMA)
- Resource Management Act (RMA)
- Local Government Act (LGA)

RINS covers the entire transport network of the Rotorua District, which is part of both the Waikato and Bay of Plenty Regions. It aligns with the Bay of Plenty Regional Land Transport Strategy and is consistent with the Waikato Regional Land Transport Strategy.

Rotorua is a key transport node in the central and upper north island. Key routes connect primary industry with the Port of Tauranga and provide tourism links to Taupo, the Waikato and Auckland.

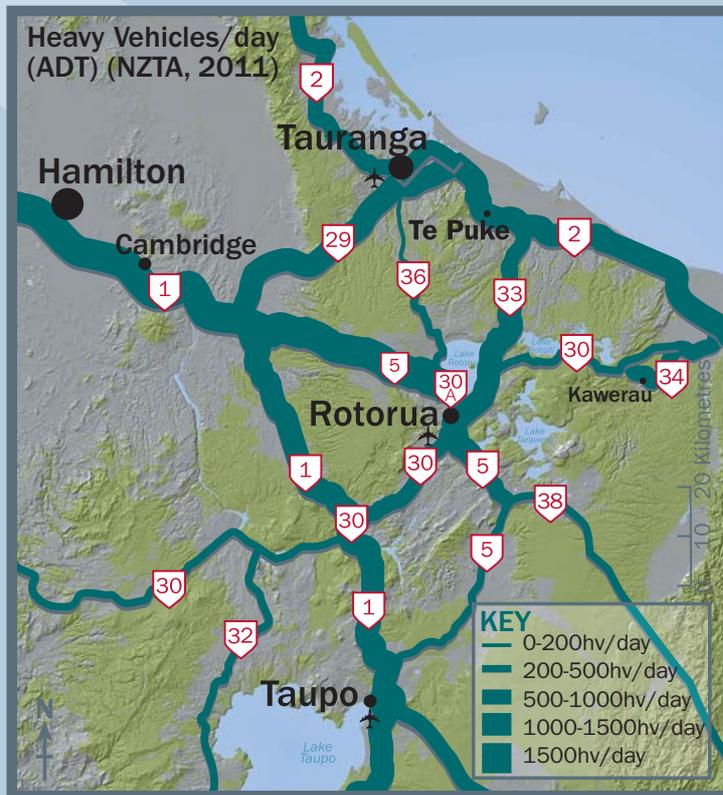
Rotorua Airport is regionally significant and serves domestic and international flights. Key regional links include:

- SH30 to the Eastern Bay of Plenty
- SH5 to Taupo
- SH5 to Waikato and further north to Auckland
- SH36 to Tauranga
- SH33 to Te Puke and Tauranga
- SH30 to Te Kuiti



Upper North Island Connections

The primary drivers for economic activity and economic growth in Rotorua are freight and tourism. Rotorua's strategic transport corridors provide connections to freight and tourism centres in the Upper North Island, such as Tauranga and Auckland. They also link employment, production markets and tourism destinations in the Waikato and the Bay of Plenty.



Freight Connections

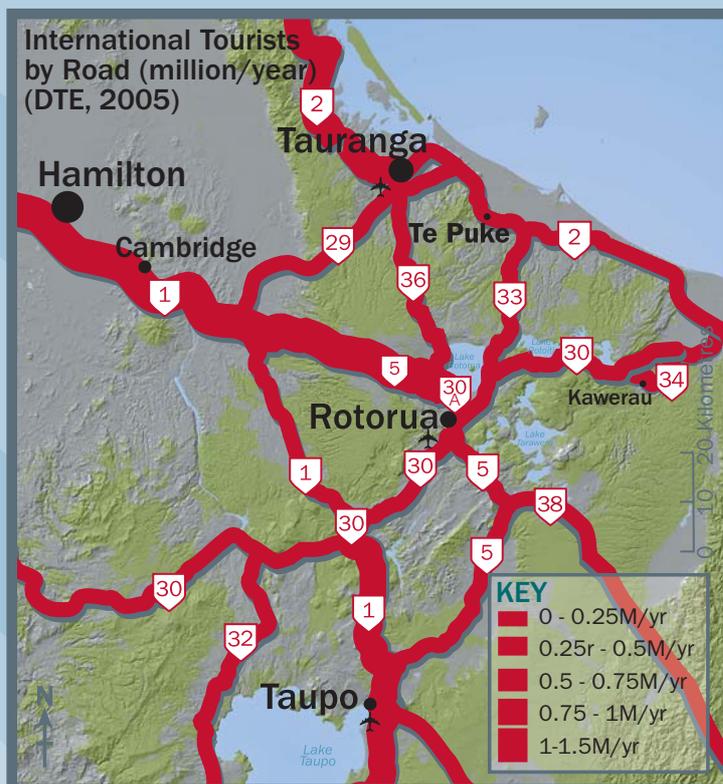
The SH30/33 corridor to Tauranga carries the majority of the freight from and passing through Rotorua to the Port of Tauranga. The development of the Tauranga Eastern Link may make the SH33 route more attractive.

SH30 carries approximately 1200 heavy vehicles daily. In some sections, SH5 carries over 1600 heavy vehicles daily.

Private forestry roads carry some of the local forestry harvesting traffic and can form part of the high productivity motor vehicle network.

The internal freight volumes for the Bay of Plenty are dominated by logs and timber products (44%), followed by aggregate (22%) and dairy products (13%).

Logs and timber products, horticulture and aggregate are expected to have substantial increases by 2031.



Tourism Flows

Rotorua is the third most visited destination in New Zealand. In 2010 there were 3.2 million visitor arrivals to Rotorua, who are collectively estimated to have spent \$551 million during their stay.

SH5 carries more than one million international tourists each year north of Rotorua and over half a million international tourists between Rotorua and Taupo. SH5 is promoted as part of the Thermal Explorer tourist route. SH38 is promoted as the Rain Forest highway.

As well as large volumes of independent travellers, inter-city and tour coaches bring tourists. Passengers on Tauranga's cruise ships visit Rotorua by coach via SH36 and SH33.

The dominant flows for international visitors are southbound, flying out from Rotorua or further south, or returning north via roads further west.

Rotorua's District Connections

Rotorua's connections with the upper North Island overlap with the district's and city's transport needs. The regional movement functions share transport corridors with local movement and access demands. This can result in competing demands and conflict.

Rotorua Western Corridor

Rotorua's Western Corridor runs along SH5 Old Taupo Road, Fairy Springs Road and Ngongotaha Straight. Recent upgrades have substantially resolved congestion issues. Local road intersections and industrial access can face delays at peak periods. The main issues result from conflict between high through traffic flows interacting with local traffic, access and crossing demands.



Rotorua Eastern Corridor

The Eastern Corridor links connections through and to Rotorua using SH30 and Te Ngae Road. Existing and proposed land use in the eastern corridor area includes industrial, commercial and residential development. It links to Rotorua International Airport and tourist attractions.

In the urban area the through function overlaps with local access for residential, employment and tourist activities.

Frontage activities include residential and commercial activities, leading to side friction and conflict.

The existing SH30 Te Ngae Road is a barrier between local community services, education and residential areas.

Rotorua Southern Corridor

The Southern Corridor links between primary production areas in the central North Island and processing and transport centres in the Bay of Plenty and north. It is an important continuation of the popular Thermal Explorer Highway and links to local and national tourist attractions such as Whakarewarewa and Te Ara Ahi.

There is limited demand for access for residential and employment areas, so there is little conflict. No significant land use changes are expected.

Rotorua Urban Area

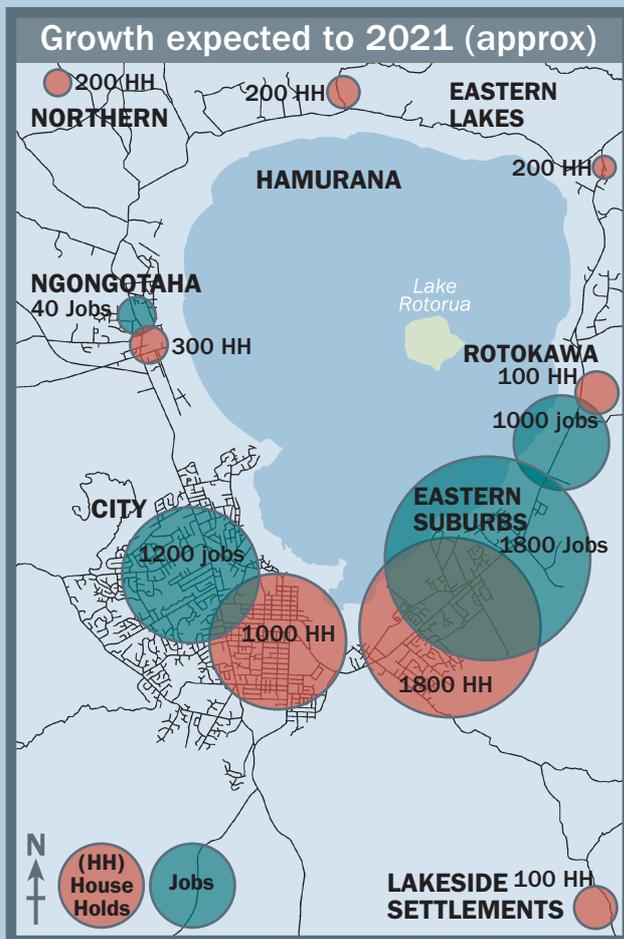
SH30A Amohau Street is the most direct state highway cross-city connection but is subject to traffic signals to manage north/south conflicts and access demands. Other corridors include Lake Road and SH30 Sala Street.

Its functions include carrying traffic between the eastern and western corridors, access to the tourist destinations and services, and the city centre.

Integration - Land Use and People

Integrated Land Use Planning

Rotorua's planning framework targets prosperity and improved lake water quality.



A combination of population growth, households comprising fewer people and growth in tourism means that Rotorua needs more residential space.

The key land use issues are:

- Managing runoff to the lakes through changing land use and infrastructure
- Unplanned land use changes and impacts on infrastructure
- Redistribution of growth and managing the risks of slower or faster growth

The Rotorua Basin Structure Plan is for the majority of development to occur in the Eastern Suburbs, with modest growth in the city centre, and gradual growth in the rural areas north of Hamurana in the medium to long term.

Rotorua has a high proportion of tourism-related employment such as in accommodation, retail and food services. There are opportunities in research and in geothermal-related tourism and industry.

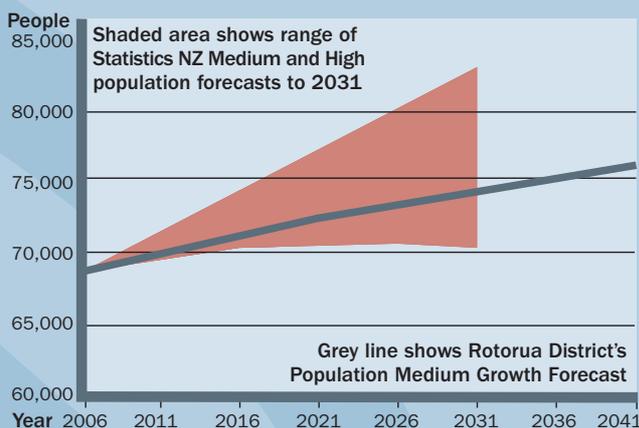
Employment growth is expected to take place in the eastern suburbs. This complements existing commercial and industrial development.

Employment growth in the east would have convenient connection to the Eastern Corridor and be in close proximity to the planned residential growth.

Rotorua is planning for growth slightly higher than Statistics NZ medium projections. The assumptions will be reviewed when census information is updated.

The average number of people in Rotorua households is expected to drop, so more houses will be needed for the same population.

Projected Population



OUTCOMES SOUGHT

- Integrated land use and transport planning
- Improved lake water quality
- Prosperity
- Strong town centre



City Centre Vitality

Revitalising the city centre is important for a prosperous and sustainable Rotorua.

Rotorua's city centre is the focus of commercial and cultural activity. Revitalising the city centre is an important resource management consideration for the district. The city centre is Rotorua's premier location for commercial activity, office-based administration, speciality retail, dining and tourist accommodation.

Rotorua is an important tourist centre; the third most visited in New Zealand. Improving links to the city centre provides opportunities for the tourism sector. Access is fundamental to economic growth in terms of tourism and employment opportunities. Encouraging development within the city centre complements transport planning by reducing the need for travel, supporting walking, cycling and public transport and therefore reducing demand on the existing surrounding networks.

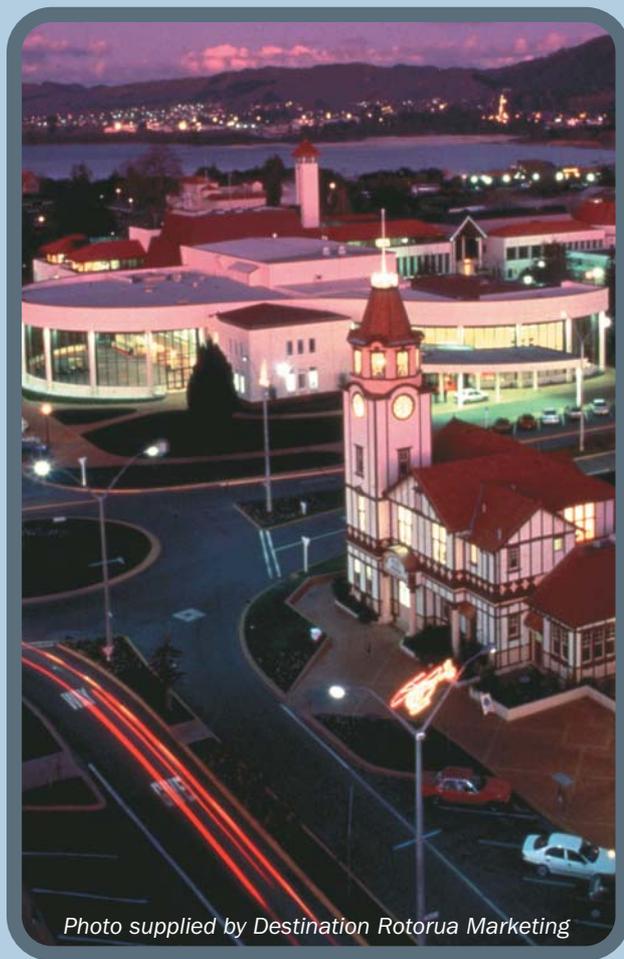


Photo supplied by Destination Rotorua Marketing

CBD Revitalisation Strategy

A busy and successful city centre need requires safe and effective connections between markets.

The Rotorua District CBD Revitalisation Strategy includes an Urban Design Framework, improving pedestrian links between the lake front, city centre and Rotorua Central, and the redevelopment of buildings on Tutanekai Street to improve safety and accessibility.

Objectives for intensifying the city centre include:

- Intensified activity, including new tourist and residential accommodation
- Well-defined boundaries
- Pedestrian focus
- Safe public spaces

Rotorua's transport network needs to be able to accommodate and manage the competing demands for access to the city centre and efficient cross-city connectivity for all modes. Amohau Street, the current state highway corridor and main cross-city connection, faces a combination of increased demands for development and access, high volumes of through traffic and increasing pedestrian activity. This has led to increasing congestion and the potential for crashes.

Managing these development pressures and conflicts on the current corridor may constrain growth or result in development pressures elsewhere. Supporting city centre vitality requires careful management or an alternative corridor to reduce or avoid the potential for conflict.

OUTCOMES SOUGHT

- Prosperous and accessible city centre for residents and visitors
- Reduced conflict between cross-city movements and access



Public Transport, Walking and Cycling

Improved Accessibility

Rotorua's urban area is compact, relatively flat and suitable for walking and cycling. The urban bus service has demonstrated strong growth in patronage.

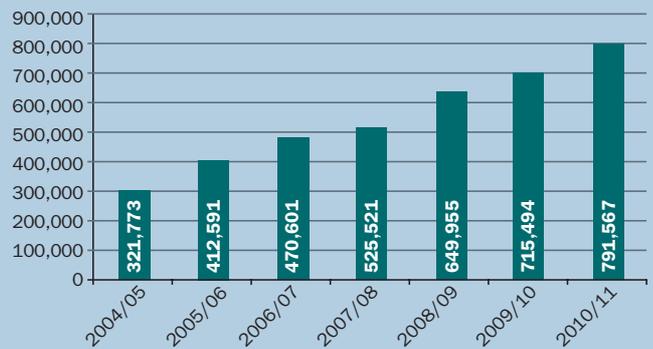
Rotorua is home to world class mountain biking trails within Whakarewarewa Forest. Te Ara Ahi is a 74km long section of the national cycleway. It links Rotorua to the Waikato River.

Rotorua is a popular tourist destination and the attractions include Lake Rotorua, Whakarewarewa Forest and Te Ara Ahi. Rotorua strives for an accessible city centre with good pedestrian linkages between attractions, facilities and public transport.

There is increasing demand for transfer and terminal facilities for urban, regional and intercity/tourist coach services. The existing terminal for inter-regional, tourist and taxi operators is operating near full capacity. Local buses use an on-street facility with bus shelters. There is an opportunity to improve and increase capacity of the Rotorua Public Transport Centre and local end of journey facilities.

Rotorua hosts a number of cultural, sporting and conference events. Many outdoor events focus on cycling, mountain biking or walking around the lakes and forests.

Rotorua Bus Service (annual patronage)



The main local, inter-regional and tourist bus and coach facilities should be located in the same place to encourage cross-patronage and transfers.

Developing connections for walking and cycling between the city centre, the lake, Whakarewarewa Forest and public transport facilities can contribute positively to accessibility for locals and tourists.



Photo supplied by BOPRC

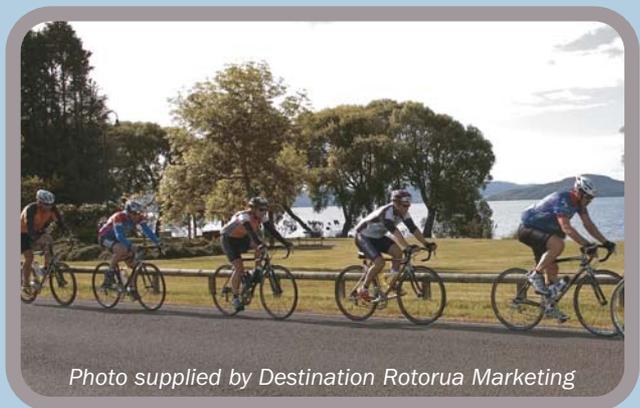


Photo supplied by Destination Rotorua Marketing

OUTCOME SOUGHT

- Increased active and public transport mode share
- More accessible city centre



Freight

Rotorua's transport network has key connections for freight between the Port of Tauranga and the central and upper North Island markets.

Rotorua lies at a node in the upper North Island transport network between ports, primary production areas where key freight routes cross, processing centres and labour markets. It also acts as an important service and freight distribution centre for the surrounding area. The Bay of Plenty has over double the average weight intensity on roads in New Zealand at 215KT/km.



Photo supplied by BOPRC

A key issue for Rotorua relating to freight movement is the balance between reliable and efficient access along key routes for freight and economic growth, and providing for safe local access and amenity. In particular, this applies to SH30 Te Ngae Road and SH30A Amohau Street. SH30 is an important corridor connecting the forestry and horticulture industries of the Bay of Plenty and Eastern Bay of Plenty with the upper and central North Island (via SH5 and SH30). It is an important freight route carrying over 1,200 heavy vehicles daily.

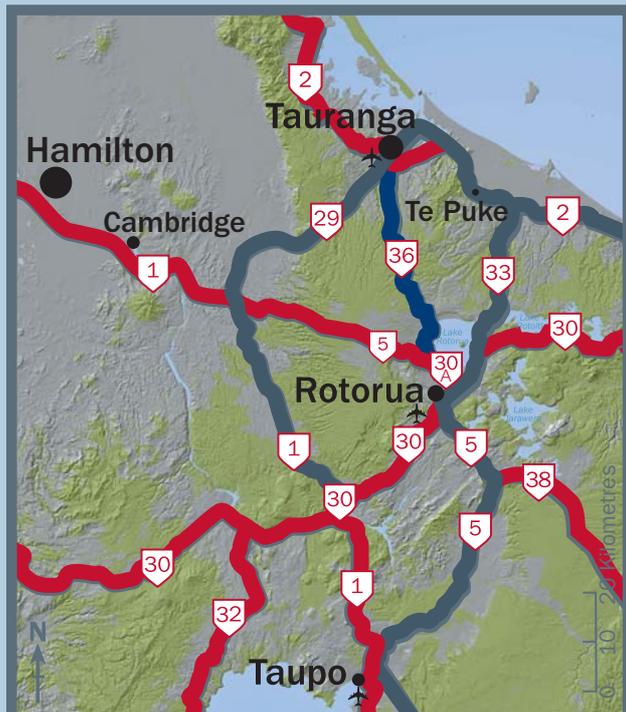
OUTCOMES SOUGHT

- Efficient freight routes that support high levels of economic productivity



Rotorua's transport network is a strategic connection in the upper North Island linking the timber industry to the Port of Tauranga for exports. The growing log and timber-related industry means that freight movements within the region are expected to increase. Changes in port traffic and harvesting patterns would increase freight demands. Increasing use of High Productivity Motor Vehicles may influence traffic patterns.

There is the potential for significant Treaty Settlements to release land around Rotorua for more intensive development.



High Productivity Motor Vehicle (HPMV) Routes

- Greater than or equal to LIMITED HPMV but less than FULL HPMV
- Greater than or equal to LIMITED HPMV but less than FULL HPMV and Route Identified for Investment 2012 - 2015
- Greater than CLASS 1 but less than LIMITED HPMV

(NZTA: As at May 2012)

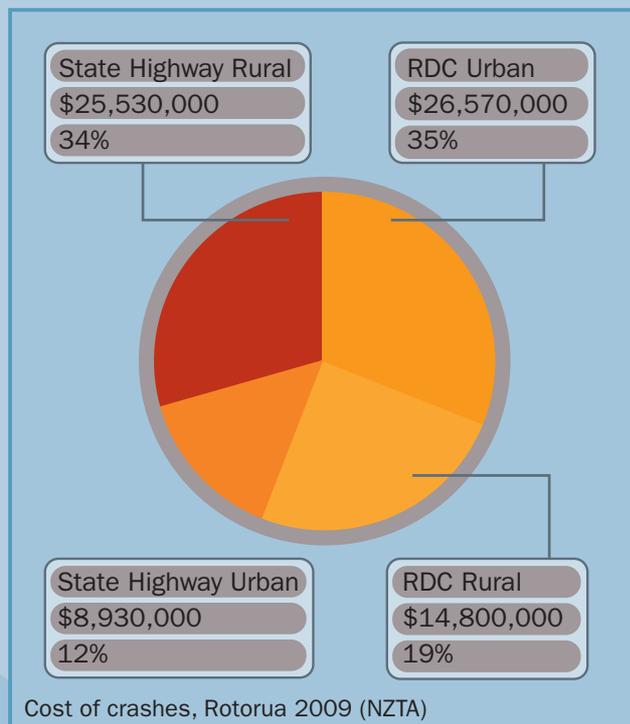
Safety

Safety for all users

There are around 150 injury crashes on Rotorua roads each year. Each year, the social cost of Rotorua's crashes is over \$75,000,000.

Rotorua's areas of high concern for road safety include speed, alcohol and drugs, and too many crashes on rural roads.

Rotorua's safety performance is generally consistent with or better than that of local authorities with similar characteristics and is showing a reduction in the number and severity of crashes.

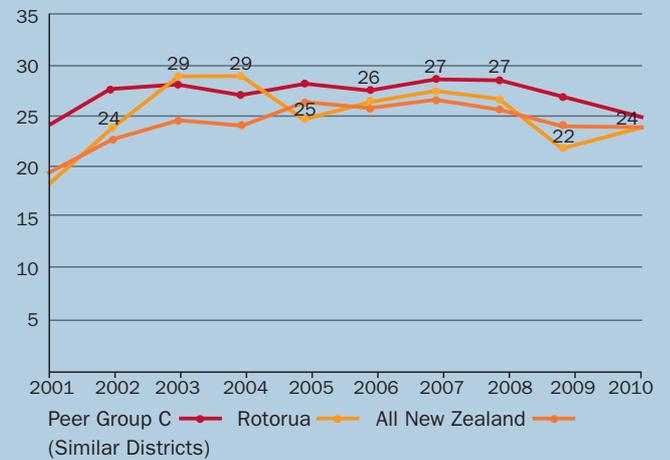


Rotorua District Council, NZTA, Bay of Plenty Regional Council and NZ Police work together on improving safety. Rotorua has a wide range of community programmes to combine road safety education with engineering interventions and enforcement.

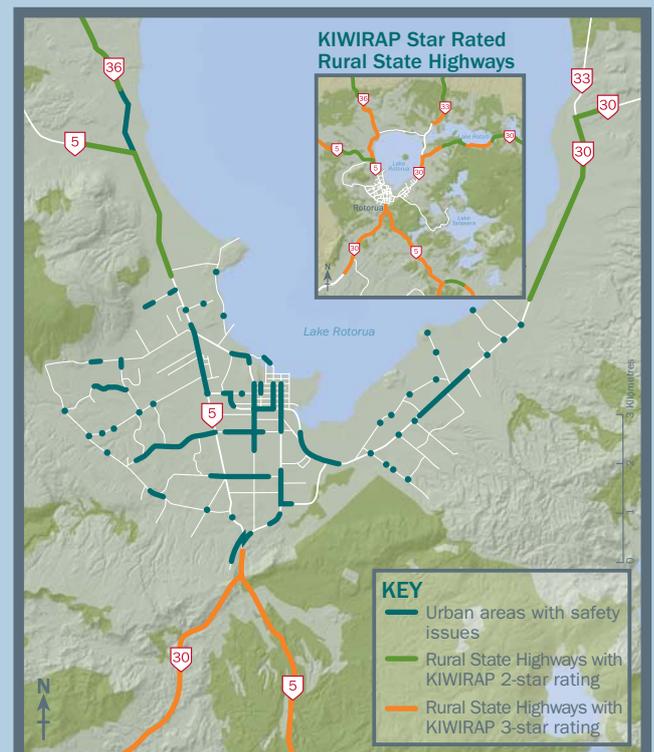
Changes in land use can influence safety by increasing the demand for travel and potential for conflict.

Network and development management can achieve consistent and appropriate standards to minimise the chances of crashes, and reduce the consequences if a crash does take place.

Crashes per 10,000 people - Rotorua (NZTA Data)



Most of the crashes take place on rural state highways and urban local roads.



OUTCOME SOUGHT

- Safety for all users



Traffic Flows and Network Performance

Rotorua's transport network combines local and inter-regional functions. Rotorua is a key node on routes connecting the central and upper North Island with the Port of Tauranga.

Existing capacity issues relate mainly to peak periods and the eastern and western approaches. These are forecast to worsen by 2021, with delays and congestion on sections of Te Ngae Road. Intersections on arterial routes carrying high traffic flows will face increasing delays that may lead to safety problems.



OUTCOME SOUGHT

- An efficient inter-regional transport system that supports high levels of economic productivity and provides strong connections for freight and tourism
- An accessible and safe local transport network



Traffic modeling is based on projected rates of growth and development. This leads to uncertainty in the likely time when interventions may be triggered. Project development processes and reviews take this into account.

Journey time reliability is an important factor for time sensitive functions - i.e. port connections, airport links, passenger transport and tourist connections. Localised capacity issues increase uncertainty in travel time.

Desired Corridor Functions

The desired function for each of Rotorua's strategic corridors has been developed in response to the strategic context and analysis of issues.

Corridor	Desired Corridor Functions
District Wide	Transport corridors in the District provide safe and reliable access for users consistent with their role in the road hierarchy. Corridors serve competing demands including convenient access to and across the corridor, efficient through movement, facilities for different road users and managing potential impacts on surrounding activities
Rotorua Eastern Corridor	The desired functions of the Rotorua Eastern Corridor include: <ul style="list-style-type: none"> • safe, reliable and efficient connection between production and processing centres and Tauranga for freight • safe access to the Rotorua International Airport, tourism, commercial, industrial and residential markets in the east with urban Rotorua and destinations to the south and west • local access functions in the urban area, including crossings • accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area
Rotorua Urban Network	The desired functions of the strategic arterial corridors in the urban area include: <ul style="list-style-type: none"> • safe, reliable and efficient connections between the Eastern, Western and Southern corridors for freight • safe access to and through the town centre for all users • accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area
Rotorua Western Corridor	The desired functions of the Rotorua Western Corridor include: <ul style="list-style-type: none"> • a reliable and efficient connection for freight between Rotorua and the north and west • a safe and reliable connection for tourists from the north and west, including Auckland and Tauranga • local access functions in the urban area, including crossings • accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area
Rotorua Southern Corridor	The desired functions of the Rotorua Southern Corridor include: <ul style="list-style-type: none"> • safe, reliable and efficient connection for freight movement between production areas, processing centres and links to destinations beyond Rotorua • safe and reliable connection for tourists between Rotorua, Taupo and local attractions

In order to deliver the desired function, interventions on each corridor will be targeted to achieve impacts that support the function and manage potential conflicts between competing uses.

Strategic Areas and Prioritised Outcomes (Symbol size reflects <u>relative</u> priority for each outcome in that corridor)		Targeted Long-Term Impacts (✓ = not a significant issue, ✓✓✓ = significant issue or opportunity)					
		Better use of existing transport capacity	More efficient supply chains	A resilient and secure transport network	Reduction in deaths and serious injuries from road crashes	More transport mode choices	Reduction in environmental effects from land transport
District Wide		✓✓	✓✓	✓✓	✓✓✓	✓	✓✓
Rotorua Eastern Corridor		✓✓	✓✓✓	✓✓	✓✓	✓✓	✓✓
Rotorua Urban Network		✓	✓✓	✓✓	✓✓	✓✓✓	✓
Rotorua Western Corridor		✓	✓✓	✓✓	✓✓	✓✓✓	✓
Rotorua Southern Corridor		✓✓	✓	✓✓	✓✓✓	✓	✓

Outcomes and Interventions by Corridor

In Rotorua, the targeted impacts apply differently in different areas. The targeted impacts can be delivered by a range of interventions to optimise the performance of the network and achieve the desired outcomes. Intervention options and the desired outcomes for Rotorua and its strategic corridors are shown below.

An intervention hierarchy has been taken from the RLTS. Interventions are applied to achieve the desired outcomes for each corridor. Each corridor has a different focus on particular outcomes depending on its needs and desired function. Larger symbols are used to illustrate where one outcome is locally more important than others.

Intervention	 District Wide	 Rotorua Eastern Corridor	 Rotorua Urban Network	 Rotorua Western Corridor	 Rotorua Southern Corridor
 Land use and transport integration	<ul style="list-style-type: none"> District Plan and planning framework Land development in appropriately serviced areas Triggers for developments with significant traffic Development standards 	<ul style="list-style-type: none"> Protect strategic corridors (SH30/REA) Manage land use to minimise conflict and pedestrian crossing demands on strategic corridors (SH30) Recognise and manage potential conflict between uses 	<ul style="list-style-type: none"> District Plan rules encouraging pedestrian and PT linkages in the city centre Manage land use to minimise conflict and pedestrian crossing demands on strategic corridors Recognise and manage potential conflict between uses 	<ul style="list-style-type: none"> Protect strategic corridors (Fairy Springs Rd) Manage land use to minimise conflict and pedestrian crossing demands on strategic corridors (Fairy Springs Road) Recognise and manage potential conflict between uses 	<ul style="list-style-type: none"> Protect strategic corridors (SH5/SH30) Manage land use to minimise conflict and pedestrian crossing demands on strategic corridors (SH5/SH30)
 Transport Demand Management (TDM)	<ul style="list-style-type: none"> Through policy such as the District Plan for developments to consider reducing their demand for travel Education and promotion of other modes 	<ul style="list-style-type: none"> Options for PT priority over commuter traffic Pedestrian and cycleway connections 	<ul style="list-style-type: none"> Control parking supply and encourage shared parking Pedestrian and cycleway connections within the city centre and to PT Extend PT routes or schedules Options for PT priority 	<ul style="list-style-type: none"> Options for PT priority on Fairy Springs Rd Pedestrian and cycle connections 	<ul style="list-style-type: none"> Facilitate bus movements on strategic corridors Pedestrian and cycleway connections
 Freight Management	<ul style="list-style-type: none"> Use freight priority routes Locating freight generating activities in appropriate locations Industrial Land Access 	<ul style="list-style-type: none"> Traffic signal coordination (SCATS) to prioritise through traffic Freight priority route 	<ul style="list-style-type: none"> Traffic signal coordination (eg. SCATS) 	<ul style="list-style-type: none"> Traffic signal coordination (eg. SCATS) Freight priority route 	<ul style="list-style-type: none"> Maintenance focus Freight priority route
 Road Improvements	<ul style="list-style-type: none"> Widening at intersections to increase capacity Safety improvements Pedestrian/cycling facilities Improved signage Consider options for stormwater and road run-off to contribute to improving lake water quality 	<ul style="list-style-type: none"> Options to facilitate freight movement and improve journey times including to access the Rotorua Airport Pedestrian and cycleway connections Manage stormwater and road run-off Manage local road connections to prioritise through traffic function 	<ul style="list-style-type: none"> Options to facilitate freight movement and improve journey times and bypass the city centre Manage stormwater and road run-off Manage local road connections to prioritise arterial road function 	<ul style="list-style-type: none"> Local road intersection improvements Manage stormwater and road run-off Options to facilitate freight movements 	<ul style="list-style-type: none"> Local road intersection improvements Manage stormwater and road run-off Options to facilitate freight movements Maintenance focus
 Sustainable Transport Improvements	<ul style="list-style-type: none"> Develop connections to bus stops and routes, walking and cycling paths 	<ul style="list-style-type: none"> Include pedestrian and cycleway connections to the city centre, Whakarewarewa and Te Ara Ahi PT facilities on key routes 	<ul style="list-style-type: none"> Co-located public transport facilities in the city centre connecting local, inter-city and tourist bus services, pedestrian and cycling networks Encouraging PT, walking and cycling use by providing facilities and connections Connections to Te Ara Ahi for locals and tourists 	<ul style="list-style-type: none"> Walking and cycling connections from western suburbs and Ngongotaha to city centre 	<ul style="list-style-type: none"> Develop walking and cycling connections to bus stops and routes, pedestrian and cycle paths Connections to Te Ara Ahi and tourists

An Optimised Transport System

Strategic Direction

The strategic direction for RINS is to optimise Rotorua's arterial networks and land use development by:

- Ensuring land use and transportation infrastructure development are coordinated and managed through a flexible assessment framework that considers affordability.
- Planning for and accommodating a range of travel choices including public transport, walking and cycling to minimise demand for travel.
- Optimising use of the existing network infrastructure to support economic growth through corridor management and coordinating renewals with improvements.
- Coordinating infrastructure delivery and ability of the community to fund it.
- Focusing effort and investment on low cost measure and large projects where they provide significant improvements in safety or improve opportunities for economic growth.

The strategic direction focuses on issues that contribute to the desired national outcomes for transport. The hierarchy of interventions approach optimises transport investment and prioritisation of alternatives and options at a strategic level to achieve value for money.

The key strategic issues in Rotorua relate to the strategic areas of the Eastern Corridor, Western Corridor and Urban Network. These correspond with the packages proposed in the RLTS and the key strategic activities identified within them.



Effective Delivery

Effective infrastructure and land use decisions need a clear understanding of the future network. Traffic demands and forecasts will be reviewed to ensure that projections are consistent with actual growth. Trigger points for delivery will be determined as part of project investigations and package development.



Photo provided by BOPRC

Integrated Network Planning and Management

Network and land use management around the urban network and Eastern corridor depends on the future of SH30 Te Ngae Rd and SH30A Amohau St. RDC has made a significant investment in investigating cross city connections and has designated the Victoria Street Arterial (VSA) as a means of delivery. NZTA is investigating options for the Eastern Arterial (REA).

Commitment to the final form of the Eastern Corridor and cross-city connection (Victoria Street Arterial/ Amohau Street) is required to allow RDC and NZTA to decide how best to optimise the network in the interim for long term sustainability and to support effective land use planning.

The delivery of the Rotorua Integrated Network Strategy will be through a hierarchy of interventions.

Where activities are urgent and necessary to support future activities or decision-making, they will be programmed accordingly. Some activities have already been identified by previous investigations. Prioritisation and delivery of activities will depend on affordability and will be delivered considering factors including:

- District Plan and land use integration.
- Range of travel choices to minimise demand.
- Optimise the use of existing infrastructure.
- Coordinate infrastructure funding.
- Focus on low cost measures and large projects which provide significant opportunities for economic growth or benefits.
- Prioritise activities delivery by their outcomes as funding permits.



Indicative Implementation Plan 2012 - 2042

0-3 years	As per the Long Term Plan (LTP) and the Regional Land Transport Programme (RLTP)
3-10 years	As per the Long Term Plan (LTP) and the Regional Land Transport Programme (RLTP), subject to review.
10-30 years	Subject to monitoring including review of the growth assumptions and traffic.

Land Use

The District Plan sets out land use patterns and activities by zoning and rules. Assessments of significant activities and land use changes should reduce the risk of compromising the planning and delivery of supporting infrastructure.

Rotorua District Council will review growth assumptions when census information is available to improve the certainty around the rate of growth and the resulting demands and timing for infrastructure.



Rotorua Eastern Corridor Package



The desired functions of the Rotorua Eastern Corridor include:

- Safe, reliable and efficient connection for freight between production and processing centres and Tauranga
- Safe access to the Rotorua International Airport, tourism, commercial, industrial and residential markets in the east with urban Rotorua and destinations to the south and west



- Local access functions in the urban area, including crossings
- Accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area



Key Strategic Components

Rotorua Eastern Arterial, District Plan review

Strategy that this package is linked to/supported by

Rotorua Integrated Network Strategy 2012
Bay of Plenty Regional Land Transport Strategy 2011-2041

Potential Contribution to Strategic Objectives:

The Eastern Corridor is a key inter-regional connection as well as an important local corridor for access to the airport, and between residential and employment areas. There are conflicting transport functions in the urban sections.

The package of activities contributes to:

- Relieving capacity constraints
- More efficient freight supply chains
- Facilitating economic growth and employment opportunities by providing certainty for access
- Improving journey time reliability

Delivery Considerations

The selection between options on and off Te Ngae Road is subject to the scheme assessment investigation, any necessary statutory processes, funding approvals and detailed design. The package development will need to recognise the competing functions in the corridor and consider:

- Coordinated designs to ensure an appropriate connection between the Rotorua Eastern Arterial and the Victoria Street Arterial
- Continuity of standards and treatments for walking, cycling and public transport for the Rotorua Eastern Arterial and the Victoria Street Arterial
- Management of local road connections to support the road hierarchy and prioritise the through traffic function
- Traffic signal coordination options (e.g. extension to SCATS), monitoring and priority options
- Staging options and standards for interim works on Te Ngae Road to address local safety and access issues
- Potential benefits from construction concurrent with Victoria Street Arterial
- Options for passenger transport and high occupancy vehicles
- Options for contributing to improving lake water quality and catchment management for stormwater and road run-off.

Key Activity: Rotorua Eastern Arterial

The NZTA's main objective for the REA project is to contribute to an affordable, integrated, safe, responsive and sustainable transport system by:

- Facilitating the movement of freight and tourist traffic along the state highway network and between the central business district and the airport
- Providing a safe, efficient and reliable transport link through Rotorua's eastern suburbs
- Supporting managed growth in Rotorua's eastern suburbs and the wider central North Island and Bay of Plenty region
- Enabling lake water quality improvements to proceed.

Rotorua Urban Network Package



The desired functions of the strategic arterial corridors in the urban area include:

- Safe, reliable and efficient connections between the Eastern, Western and Southern corridors for freight, commercial and tourist traffic
- Safe access to and through the city centre for all users
- Accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area



- Avoiding or managing safety and efficiency impacts on cross-city movements from local access
- Revitalisation of the town centre by reducing severance and constraints on development

Key Strategic Components

Rotorua Transport Centre, Victoria Street Arterial, City centre focus

Strategy that this package is linked to/supported by

Rotorua Integrated Network Strategy 2012

Bay of Plenty Regional Land Transport Strategy 2011-2041

Potential Contribution to Strategic Objectives

The Urban Network Package will contribute to improved safety, economic growth and a reduction in travel demand through:

- Avoiding or managing safety and efficiency impacts on cross-city movements from local access
- Improving connections for public transport
- Avoiding or reducing capacity constraints
- Reducing severance and conflict
- Revitalisation of the town centre by reducing severance and constraints on development

Package Considerations

Development of the package will need to consider the following factors when responding to the competing functions of the corridor. Delivery of a coordinated and complementary package of interventions is required to resolve the tension between safety, access, efficiency, and development aspirations.

- Managing land use along and to the south of the cross-city corridor to minimise side friction, conflict and crossing demands
- Recognition of local contribution to resolving state highway corridor issues
- Management of local road connections to support the road hierarchy and prioritise the through traffic function
- State highway revocation and future management of Amohau Street as a local arterial road, including pedestrian, cycle and PT facilities
- Coordinated designs with Rotorua Eastern Arterial to ensure continuity of treatments for PT, walking, cycling and consider options for construction such as concurrent earthworks

Key Activity: Victoria Street Arterial

The Victoria Street Arterial is a means of delivery of the cross city arterial objectives:

- To achieve a reduction in traffic movements on Amohau Street and, in particular, at the Fenton-Amohau Street intersection in order to improve the level of service, and to improve access to the town centre.
- To eliminate the division of the commercial centre to achieve an integrated town centre.
- To provide a replacement arterial link across the city that improves transport efficiency, simplifies its transportation function and reduces side friction, and contributes to improving overall traffic safety within the city.
- To avoid, remedy or mitigate adverse environmental effects, associated with property, noise and traffic effects.

Key Activity: Rotorua Transport Centre

An upgrade to the Rotorua Transport Centre will contribute to transport and economic development aims by linking local, inter-regional and tourist passenger transport functions currently serviced at separate locations.

The objectives are:

- To remove some traffic from roads.
- To encourage use of other modes.
- To reduce the adverse affects of road traffic and congestion on the environment.
- To take advantage of high visitor numbers by linking to the city centre.
- To locate the transport centre in easy walking distance of the city centre to support revitalisation.
- To improve opportunities for use of real-time transport information technology.

Rotorua Western Corridor Package

The desired functions of the Rotorua Western Corridor include:

- A reliable and efficient connection for freight between Rotorua and the north and west
- A safe and reliable connection for tourists from the north and west, including Auckland and Tauranga
- Local access functions in the urban area, including crossings



- Accommodating local bus services and higher numbers of pedestrians and cyclists in the urban area

Key Strategic Components

District Plan review, Traffic management facilities

Strategy that this package is linked to/supported by

Rotorua Integrated Network Strategy 2012
Bay of Plenty Regional Land Transport Strategy 2011-2041

Potential Contribution to Strategic Objectives

The Western Corridor Package will contribute to improved safety, economic growth and a reduction in travel demand through:

- Avoiding or managing safety and efficiency impacts on cross-city movements from local access

- Improving connections for passenger transport
- Avoiding or reducing capacity constraints
- Reducing severance and conflict
- Revitalisation of the town centre by reducing severance and constraints on development

Delivery Considerations

Development of the package will need to consider the following factors:

- Potential for growth in local road corridors
- Management and potential rationalisation/closures of local rd connections to support the road hierarchy and prioritise the through traffic function

- Protecting options for passenger transport
- Managing land use along and to the east of the corridor to minimise side friction and conflict, and manage pedestrian crossing demands
- Optimising traffic signal coordination (SCATS), monitoring and priority options
- Supporting walking and cycling facilities

Rotorua Southern Corridor

The desired functions of the Rotorua Eastern Corridor include:

- Safe, reliable and efficient connection for freight movement between production areas, processing centres and links to destinations beyond Rotorua



- Safe and reliable connection for tourists between Rotorua, Taupo and local attractions.

Potential Contribution to Strategic Objectives:

There are no significant overlapping issues in the Southern Corridor that require a package approach to ensure effective delivery. Road capacity is sufficient for the foreseeable future. There are no significant land use changes.

The main contribution of the corridor will be in providing a safe and reliable corridor for freight and tourist movements.

Delivery Considerations

No package is proposed for the Rotorua Southern Corridor. Interventions will generally be maintenance-related or in response to localised safety deficiencies

as they arise, Traffic conditions and safety performance will continue to be monitored so that any unexpected changes can be dealt with.

Monitoring

To ensure effectiveness of the intervention actions, monitoring of the performance of the network should be completed. The RLTS and Rotorua's Asset Management Plans include targets and methods of monitoring.

The rate of growth and development should be monitored to ensure that assumptions for growth remain valid and to improve the certainty of the resulting demands and timing for infrastructure. Growth assumptions should be reviewed following the next census.

Glossary of Terms

BOPRC	Bay of Plenty Regional Council	REA	Rotorua Eastern Arterial
HPMV	High Productivity Motor Vehicle	RINS	Rotorua Integrated Network Strategy
HV or HCV	Heavy (Commercial) Vehicle	RLTP	Regional Land Transport Programme
LGA	Local Government Act	RLTS	Regional Land Transport Strategy
LTMA	Land Transport Management Act	RMA	Resource Management Act
LTP	Long Term Plan	SH	State Highway
NZTA	New Zealand Transport Agency	VPD	Vehicles per day
RDC	Rotorua District Council	VSA	Victoria Street Arterial





Photo provided by RDC





FOR MORE INFORMATION PLEASE CONTACT

New Zealand Transport Agency
405 Cameron Road
PO Box 430, Seventh Avenue
Tauranga 3140
Telephone (07) 927 6009
Fax: (07) 578 2909
Email: info@nzta.govt.nz
Web: www.nzta.govt.nz

Rotorua District Council
Civic Centre
1061 Haupapa Street
Private Bag 3029
Rotorua
Telephone (07) 348 4199
Fax: (07) 346 3143
Email: mail@rdc.govt.nz
Web: www.rdc.govt.nz

Bay of Plenty Regional Council
1125 Arawa Street
Rotorua
Telephone 0800 884 880
Fax: 0800 884 882
Email: info@bop.govt.nz
Web: www.bobrc.govt.nz

