17 TRANSPORTATION

Summary

RPS Objective

Maintain and enhance the safety and efficiency of the region's transport networks, while minimising adverse environmental effects.

Pressures and state

- The present transportation network includes 6,530 kilometres of road, a rail link from Auckland via Whangarei to Otiria, a deepwater port at Marsden Point and commercial airports at Whangarei, Kerikeri and Kaitaia.
- Minimal public passenger transport services due to a limited rating base, repetitively small dispersed communities, and a high rate of both private vehicle use and ownership in Northland.
- The safety risks posed by Northland's narrow windy roads, narrow bridges, roadside hazards and lack of adequate cycle and walking facilities.
- The increasing amount of development/urban growth in rural and coastal environments placing pressure on the existing roading infrastructure.
- The human health and environmental effects from unsealed roads, vehicle emissions, stormwater run-off and spread of roadside pests, weeds and litter.
- A recent study approximates that vehicle emissions contain 104 kilograms of particulate matter and 8.6 tonnes of carbon monoxide per day in the Whangarei Air Shed (includes city centre and urban area). Earlier results estimated daily carbon monoxide emissions for the entire Northland region of 41.6 tonnes/day.
- The impact of vehicles and land transport projects on beaches and other sensitive environments.
- Traffic volumes in the region are increasing with annual increases of two to five percent being recorded on State Highways and with an estimated annual daily traffic growth of up to 5.7% on SH1 south of Whangarei.

Doing well

- There has been a steady increase in the use of the Whangarei Bus Service since it was introduced in 2000.
- Proposal underway for rail link to Marsden Point Deep Water Port in an attempt to reduce the amount of heavy freight trucks on Northlands roads.

Areas for improvement

- Encourage the reduction in vehicle emissions from private vehicle use by promoting alternative transport modes.
- Completion of the Draft Regional Walking and Cycling Strategy to promote walking and cycling in Northland, especially as there has been a decrease in people cycling or walking to work based on census data for 1996, 2001 and 2006.
- Support the adoption of the Code of Practice for the Minimisation of Stock Effluent on Roads and provide stock truck effluent disposal sites throughout the region.

17.1 Introduction

The present transportation network in the Northland region comprises of 6,530 kilometres of road, a rail link from Auckland via Whangarei to Kawakawa, a natural deepwater port at Marsden Point and commercial airports at Whangarei, Kerikeri and Kaitaia.

Regional Policy Statement objective

The Regional Policy Statement (RPS) for Northland (NRC 2002) contains the following objective relating to transportation:

- Maintain and enhance the safety and efficiency of the region's transport networks, while minimising adverse environmental effects.

Environmental results anticipated

The following is the anticipated environmental results after the implementation of the policies for transport in the Regional Policy Statement:

- Safe and efficient use of the transport network.
- Reduction in noise and other adverse environmental effects associated with transport facilities.

Regional Land Transport Strategy

The Regional Land Transport Strategy (RLTS) for Northland 2006 – 2016 is the fifth update since it was first released in 1993. The purpose of the RLTS is to provide a planning framework for the development of land transport in the region for the next 10 years that is integrated, equitable, responsive, safe and sustainable (NRC 2006).

The RLTS has been developed in accordance with the requirements of Section 175 of the Land Transport Act 1998 and is aligned with the following objectives of the Land Transport Management Act 2003:

- Assist economic development;
- Assist personal safety and personal security;
- Improve access and mobility;
- Protect and promote public health;
- Ensure environmental sustainability.

Two additional objectives, considered important to Northland, have also been added:

- Integration of land use and transport planning;
- Ensuring an affordable and financially sustainable transport network.

The Regional Land Transport Strategy (RLTS) is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Regional-Land-Transport-Strategy/

17.2 What are the pressures and state of transportation in Northland?

This chapter on transportation differs slightly from other chapters in this State of the Environment Report, in that obviously transportation is not an environment like air, land and coastal but is a potential pressure on our environment. Therefore it is clearer to present the **pressures** and **state** of transportation together in this section.

Northland transport network

The present transportation network in the Northland Region comprises 6,530 kilometres of road, a rail link from Auckland via Whangarei to Otiria, natural deepwater port at Marsden Point and commercial airports at Whangarei, Kerikeri and Kaitaia. Northland's transport system is primarily dependent on its roading network.

Roads

Of the 6,530 kilometres of road in Northland, 753 kilometres are State Highway with the remaining being local roads (NRC 2006). Approximately 65% of these local roads are unsealed, compared to the national average of 40%. The proportion of unsealed roads, many of which have poor foundation conditions and alignments, is one of the highest in the country. Northland's roads are both narrow and winding in nature and are invariably bordered by drainage ditches. The roads are administered by Transit New Zealand (State Highways) and the district councils (local roads).

Rail

The present rail line extends from Auckland via Whangarei to Otiria with a link from Whangarei to Dargaville. This line has both speed restrictions and low tunnels which limits the size of containers that can be conveyed. In addition, there is no link from this line through to the Marsden Point Deep Water Port, although a proposal is underway (see the "What is being done?" section for more information). Product is conveyed in predominantly containerised freight and as raw timber product.

Public transport services

The public passenger transport system in Northland comprises bus, taxi and ferry services. All commercial services available to the general public are required to be registered with the Regional Council under the Transport Services Licensing Act 1989. The Council is responsible for monitoring the levels of services provided and deciding whether they are appropriate for the needs of people in the region.

Currently there is only one contracted public transport service in Northland: the City of Whangarei Bus Service. In addition, there are numerous school bus routes that also service large areas of Whangarei City and the region.

Shipping

There is one large port at Marsden Point which deals predominantly with raw timber product. There is provision at Marsden Point for vessels delivering crude oil to the refinery. There are also facilities at Portland for the conveyance of Golden Bay Cement products. The existing port facilities at Whangarei Port have been closed and the channel that serviced this port is no longer dredged.

Air travel

There are three commercial airports in Northland. These are situated at Whangarei, Kerikeri and Kaitaia. Due to the short length of the runways provided, these airports are restricted to small commercial aircraft only.

Walking and cycling

Walking and cycling has huge potential as a mode of transport in the Northland Region for both recreation and commuter trips and is the most environmentally friendly form of travel. However, walking and cycling to work has steadily declined, halving in the 15 years between 1986 and 2001. In 2001, 6.3% of Northland residents walked or cycled to work compared to 14.7% in 1986. In addition, very few Northland children cycle to school on a regular basis. A number of issues have been identified for cycling such as narrow carriageways, little or no road shoulders, and the number of heavy vehicles (freight transport).

For more information on getting around in Northland refer to the following link on the Regional Council website:

http://www.nrc.govt.nz/Transport/Getting-around/

Limitations to transport network development

There are several challenges limiting the development of transport infrastructure in Northland, including:

- Low funding and rating base, and diverse socio-economic patterns within the region. For example, high growth in the south and on the east coast (as a result of Auckland's growth) compared to the far north and west coast which are more remote and sparsely settled with slower population growth.
- Low and geographically dispersed population base and lack of access to transport alternatives, and therefore high dependency on private vehicle use
- A strong rural based and manufacturing economy comprising pastoral farming, forestry, fishing and tourism, which is all reliant on heavy commercial vehicles.
- The influx of visitors in summer. The Northland region continues to be a favourable holiday destination with significant coastal development and traffic congestion at weekends and holiday periods.

As a result of this, there is currently an increase in pressure on the population and the environment caused by transportation.

Pressures on the environment

There are currently several pressures on Northland's environment caused by transportation.

Public health and air quality

Whilst Northland's air quality is generally good due to prevailing winds that disperse pollutants, there are some effects on human health and the environment caused by dust from unsealed roads and vehicle emissions. Current air quality monitoring includes deposited particulate matter (PM10) from a variety of sources, including combustion and unsealed roads. In March 2000 a PM10 high volume sampler was installed in Robert Street, Whangarei. The lack of a strong seasonal influence in the results suggests that material sourced at Robert Street is mainly from motor vehicles. PM10 concentrations at this site are acceptable approximately 74% of the time. The particulate monitoring, with sites at Robert Street and Whangarei Airport, suggests that dust nuisance is a localised problem. Approximately 50% of the inhaleable particulates in Whangarei are sourced from vehicles.

Investigations into vehicle emission levels in suburban and central Whangarei in 1994 showed that suburban Whangarei was within the Ministry for the Environment's air quality guidelines for carbon monoxide, nitrogen dioxide, PM10, and lead. However, the central city exceeded carbon monoxide levels for 5% of the monitoring period, with the results correlating well with traffic density.

Approximately 104 kilograms/day of PM10 and 8.6 tonnes/day of carbon monoxide are emitted from motor vehicles in the Whangarei Air Shed, as shown in table 1 (below), which includes the city centre and urban area of Whangarei (Wilton 2007). Earlier results estimated daily carbon monoxide emissions for the entire Northland region of 41.6 tonnes/day, of which about half (21.8 tonnes) originated from Whangarei district and about 17% (6.9 tonnes) originated from the Whangarei Air Shed (Baynham 2002).

Table 1: Estimated total daily vehicle emissions in Whangarei Air shed based on 2002 data (Source: Wilton 2007) and in turn the daily vehicle emissions per hectare.

	Daily vehicle emissions	Daily vehicle emissions/Ha
PM_{10}	104 kg	13 g
CO	8.63 t	1071 g
NO_x	1.36 t	169 g
SO_x	184 kg	23 g
VOC	1.36 t	169 g
CO_2	314 t	39 kg

Further investigation in 2000 suggests that the World Health Organisation's short-term exposure limits for carbon monoxide are unlikely to be significantly exceeded but the longer averaging periods, such as the eight-hour guideline, are more likely to be exceeded.

Dust from gravel roads is also a significant air quality issue, particularly during the dry period beginning in November and continuing through to March. Dust nuisance is linked to a perceived increase in respiratory illness and asthma. Road dust also has a considerable nuisance element especially for houses, schools, community and recreation facilities, and crops situated close to the road. Dust can affect the quality of tank water supplies. While dust suppressants can be used to control this problem, sealing is the preferred option.

For more information on the effects of vehicle emissions and the state of air quality in Northland refer to the air quality chapter.

Road run off and water quality

Surface water quality in Northland is a major issue, impacted by forest clearance, wetland drainage, pastoral farming and industrial and stormwater discharges. Vehicle emissions and pollutants in stormwater run-off from sealed areas, including roads and carparks, and unsealed roads along with adverse effects caused by bridges and culverts, all contribute to the contamination of water.

Stormwater run-off can contain a variety of contaminants including heavy metals, silt, oil, spilled stock effluent and other hazardous substances and pollutants. Many of the region's roads are affected by effluent spilled from stock trucks or left by stock crossing roads. Effluent illegally discharged from campervans can also affect water bodies. Northland's high percentage of unsealed roads have associated high run-off sedimentation issues which impacts on water quality. The severity of these effects is obviously dependant on the pressure placed on the infrastructure.

For more information on the effects of stormwater pollution and the state of water quality in Northland refer to the surface water quality chapter.

The environmental effects of the land transport network are greatly increased at environmentally sensitive sites. These effects are potentially most severe in previously undisturbed wilderness areas and can affect coastal processes, historic and natural heritage sites and landscape, ecological and habitat values.

Modification of the coastal environment for land transportation purposes can cause stormwater runoff, loss of habitat, erosion and adverse landscape effects. Coastal protection or reclamation works may be required and these can affect coastal processes,

tidal estuaries and their aquatic habitats. The potential impact of climate change and sea level rise on the land transport network, particularly changes in the frequency and intensity of rainfall, storms and tropical cyclones, should also be taken into account.

Several of the major beaches in the region, including Ninety Mile Beach and the stretch of beach between Baylys Beach and Pouto Point have road access. There are effects from vehicle use on these beaches particularly to the dune land areas, shellfish and other wildlife. In addition, fore dune environments have been affected from growth in coastal area development in the region.

For more information on the effects of vehicles on beaches and coast care initiatives refer to the coastal management chapter.

Northland's land transport network extends to or passes through a number of natural areas that have important conservation and landscape values, such as Waipoua Forest. Careful attention needs to be given to the effects of new road and rail works on natural areas including:

- Removal or alteration of vegetation with a subsequent loss of habitat;
- Introduction of noxious weeds and predators to natural habitats;
- Changes to natural drainage patterns and wetland systems;
- Creation of a physical barrier to the movement of some wildlife;
- Effects on wildlife from the noise, lights and movements of traffic.

The construction, maintenance and operation of the land transport network can have adverse affects on historic buildings and sites. Historic buildings, sites and areas are offered varying levels of protection according to their importance under the Historic Places Act 1993 and the Far North, Kaipara and Whangarei District Plans. The land transport network can also have adverse effects on culturally sensitive areas, including waahi tapu, urupa and coastal areas. Northland has one of the highest density of archaeological sites in New Zealand.

For more information on culturally sensitive areas and archaeological sites in Northland refer to the tangata whenua chapter.

Spread of pests and litter

The effects to the environment from the spread of roadside pests, weeds and litter should also be considered. The incidence of illegal dumping (vehicles and white-ware) has declined over recent years, although is still an issue in some parts of Northland. Roadside litter is still common.

Private versus public transport

Private vehicle use

Private vehicle is the predominant form of transport utilised by Northlanders, due to a limited public transport system and the expansive nature of the region. Approximately 87% of the region's households have access to at least one motor vehicle (Statistics NZ 2006), which is slightly lower than the national figure of 88% of households, as shown in table 2 (below).

Table 2: Number of vehicles that a household has access to as a percentage of the number of households surveyed in the three Northland Districts, Northland region and New Zealand (Statistics NZ 2006).

	Far North	Whangarei	Kaipara	Northland	NZ
No vehicle	6.8	7.4	5.9	7.0	7.8
One vehicle	37.5	36.7	38.0	37.2	36.3
Two vehicles	35.0	36.6	36.4	36.0	36.6
Three or more	12.5	14.1	14.6	13.6	15.3
Not stated	8.3	5.2	5.1	6.3	4.1
No. of households	19953	27621	6882	54456	1454178

Mode of transport on census day

Just over half of the people surveyed in Northland (53.9%) drove a private or company vehicle to work on the day of the 2006 census, which is only slightly higher than the national figure of 52.7%, as shown in table 3 (below).

However the concerning figures for Northland are the much lower percentages of people using public transport or walking/cycling to work. Only 0.3% of Northlanders used public transport to get to work, compared to 3.6% of New Zealanders. This is mostly due to limited public transport in Northland. Slightly less Northlanders (5.3%) cycled or walked to work compared to nationally (6.5%). This could partly be contributed to the rural nature of the Northland population and therefore the large distance between most Northlander's place of residence and work. This shows in the high percentage of Northlanders that work from home, particularly in Far North and Kaipara Districts.

Table 3: How people[1] got to work on the day of the 2006 census as a percentage of the number of people surveyed in the three Northland Districts, Northland region and New Zealand (Statistics NZ 2006).

	Far North	Whangarei	Kaipara	Northland	Total NZ
Worked at home	15.0	9.2	20.0	12.7	7.4
Did not go to work today	9.7	10.6	9.6	10.1	9.2
Drove a private vehicle	40.8	46.7	37.2	43.4	43.1
Drove a company vehicle	9.7	11.6	8.6	10.5	9.6
Passenger in a private/company vehicle	4.0	4.8	3.7	4.4	4.1
Public bus or train	0.2	0.4	0.1	0.3	3.6
Motor cycle or power cycle	0.9	0.9	2.8	1.1	0.9
Bicycle, walk or jog	5.6	5.1	5.5	5.3	6.5
Other	0.6	0.4	0.4	0.5	0.7
Not Stated	7.6	4.8	6.4	6.0	4.8
Total	24003	35367	8859	68250	2208513

1. All figures are for the employed census usually resident population count aged 15 years and over.

Public transport

The City of Whangarei Bus Service is the only contracted public passenger transport service currently operating in the Northland region. This service is subsidised by both the Whangarei District Council and Land Transport New Zealand. Introduced in June 2000, it aims to reduce the number of private vehicles on the road. The number of people using the buses since 2000 has steadily increased, from approximately 80,000 in its first year of operation to approximately 238,000 in the 2006/07 financial year, as shown in figure 1 (below).

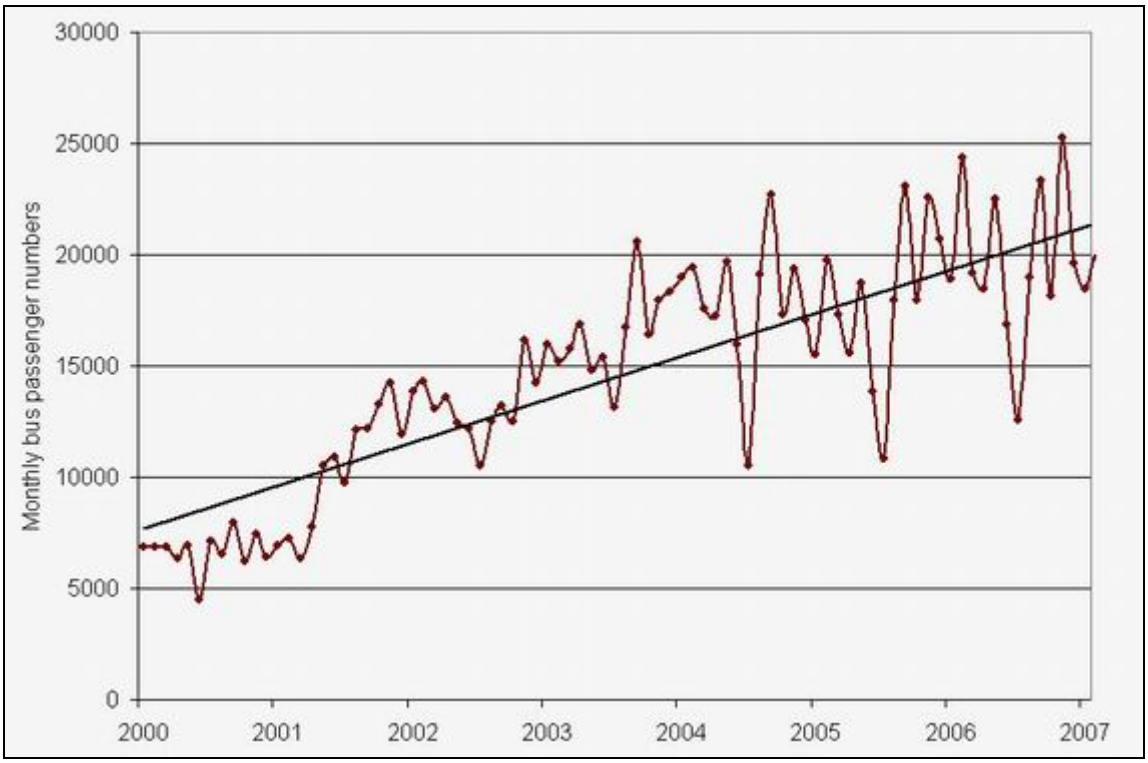

Figure 1: Monthly bus passenger numbers for Whangarei from July 2000 to June 2007

Heavy traffic movements

The Heavy Traffic Volumes report for Northland first produced in 2001 was updated in 2006. The key findings of the 2006 report are:

- On average there are 600 heavy traffic movements per day between Auckland and Whangarei (1,200 counting both directions), while there is approximately 2,500 truck movements per day in and around Whangarei, as shown in figure 2 (below).
- There have been several changes to heavy traffic movements since the 2001 report, including significant increases in the number of heavy vehicles on Northland roads for a number of reasons. These are discussed below in the 'Changes to transportation in Northland' section.

The 2006 Heavy Traffic Volumes report is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Heavy-Traffic-Volumes-Report/

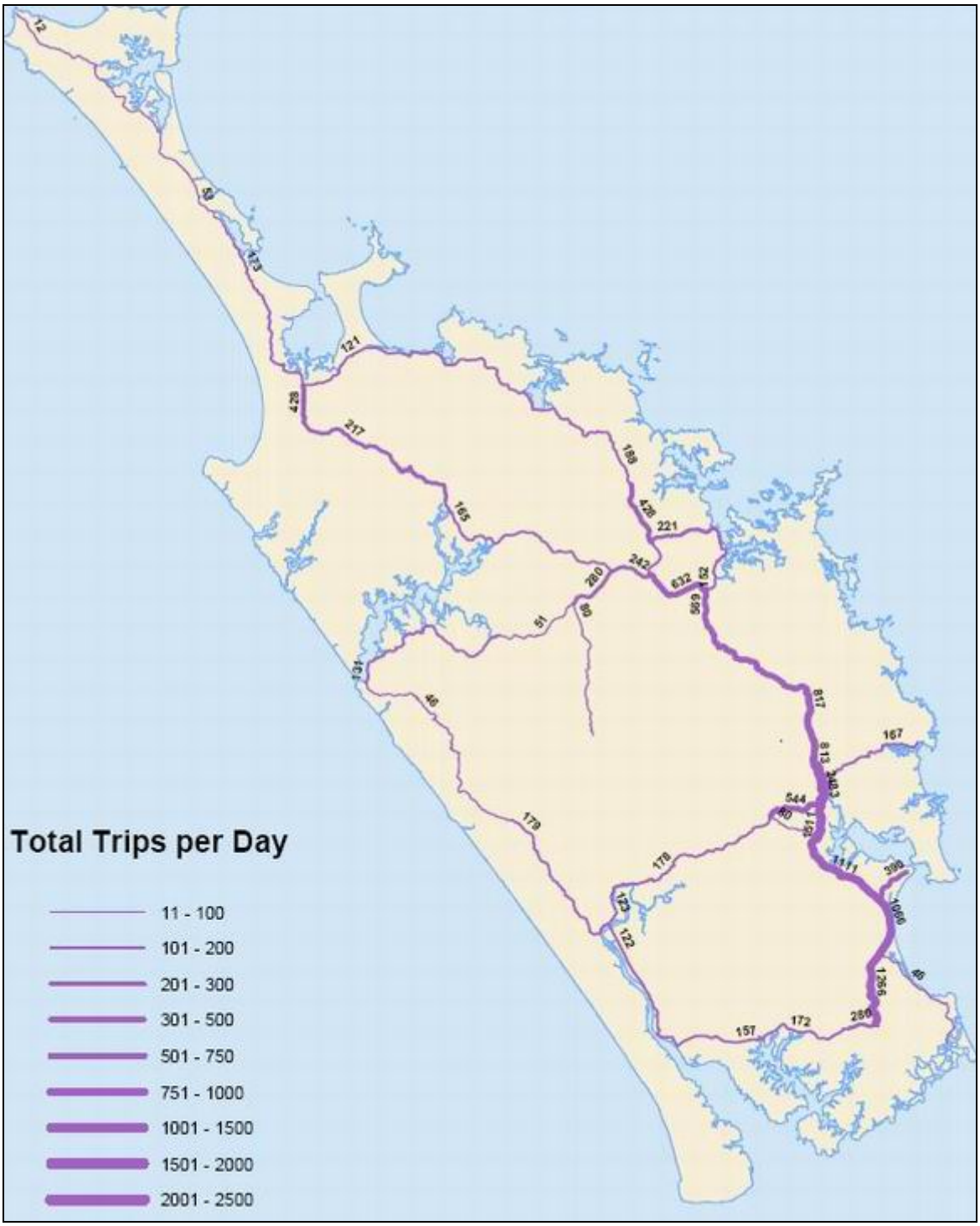

Figure 2: Total heavy traffic movements per day for Northland (NRC 2006).

Changes to transportation in Northland

The present condition of Northland's transport infrastructure is such that it is unable to effectively cope with the demand placed on it at present, let alone the pressure that will be created by the increased use of heavy vehicles in the region and increased traffic volumes.

Traffic volumes

Traffic volumes in the region are increasing with annual increases of two to five percent being recorded on State Highways and with an estimated Annual Daily Traffic (ADT) growth of up to 5.7% on SH1 south of Whangarei, as shown in table 4 (below). Heavy vehicle traffic numbers on most roads are high, ranging from nine to 25% of all traffic and with an estimated heavy commercial vehicle growth of 13.6% on SH1 south of Whangarei.

Table 4: Indicative traffic volume growth for key sites in the Northland region for both Annual Daily Traffic (ADT) and Heavy Commercial Vehicles (HCV). Source: Road Assessment and Maintenance Management (RAMM) database

Site	Years of data	ADT growth (%)	HCV growth (%)
SH1N – RS00 North of Te hapua	1993 – 2005	3.6	9.6
SH10 – RS17 South of Takou Bay	1994 - 2004	3.4	5.9
SH14 – RS000 East of Te Mai Rd	1999 – 2005	0.5	8.3
SH1N – RS273 East of Waipapa bridge	1999 - 2003	5.7	13.6

In 2004 a significant change in freight traffic occurred with the closure of Port Whangarei and the use of the new Marsden Point Port. The new port at Marsden Point is not connected to the rail network, which has resulted in traffic increases on SH1N south of Whangarei.

Pulp log exports were 900,000 tonnes out of Port Whangarei in 2003 with a significant portion delivered by rail. Woodchip is currently delivered by road from the chip mill at Portland to Marsden Point Port with 200,000 tonnes per year. Now that Marsden Point is fully functioning and Port Whangarei is being phased out, approximately 430,000 tonnes of bulk materials annually are road transported to Whangarei, often in short, peak durations. This has placed the rail network at some risk of closure. The discontinuation of the existing rail system would result in a significant impact on the road network with an estimated 86 truck trips on SH1N south of Whangarei per day, equating to a 14% increase. Whilst the State Highway would most likely cope with this increase, there would be adverse implications at key intersections with the State Highway network (NRC 2006).

There is also a marked increase in the number of motorcycles, quad bikes and four wheel drive vehicles using the beaches of Northland for recreation purposes. Much of this activity takes place within sand dune areas and is resulting in increased environmental damage and danger to local wildlife. For more information on vehicle on beaches refer to the coastal management chapter.

The anticipated increase in logging truck movements has not happened yet due to poor market conditions. However it is likely at some stage in the future that logging volumes will reach the predicted 3 or 4 million tonnes per annum when market conditions allow harvesting. There has also been an expansion in timber processing, which has the

potential to increase heavy traffic volumes overall by three times. For example, TDC Sawmills is shifting from 200,000 m^3 to 400,000 m^3 sawn timber per year.

Another change in heavy traffic volumes on SH1 from Whangarei to Auckland is as a result of the closure of Pohe Island landfill in Whangarei, which means the majority of solid waste for the Northland region is now trucked to Auckland. There are currently six or seven truck loads of solid waste a day for six days of the week from the Resort Resource Recovery Park in Rewarewa Road, Whangarei, to Redvale Landfill in Auckland (Pers. Comm. John Langsford, WDC). This includes the vegetation for composting which is trucked to living earth in Auckland.

In addition to the increase in heavy vehicles on the roads of Northland, there is a burgeoning tourist industry. The majority of these tourists travel by road. This increase further exacerbates the adverse effects to the environment.

Private vehicle ownership

Over the last 10 years there has been a slight decrease in the percentage of Northland households that do not have access to a vehicle and those that have access to one vehicle, while there has been a slight increase in the number of households that have access to two vehicles and three or more vehicles, as shown in figure 3 (below).

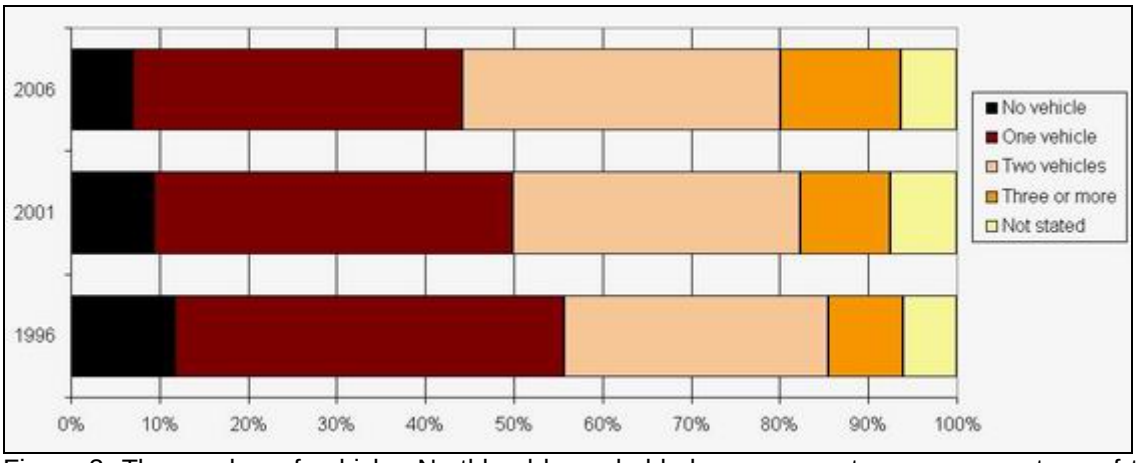

Figure 3: The number of vehicles Northland households have access to, as a percentage of the number of households surveyed for 1996, 2001 and 2006 (NZ Statistics census data).

Mode of transport on census day

How Northlanders got to work on census day in 1996, 2001 and 2006 is shown in figure 3 (below). There has been a slight decrease in the number of people working from home and the number of people that cycled or walked, while there has been a slight increase in the number of people that drove a private or company vehicle.

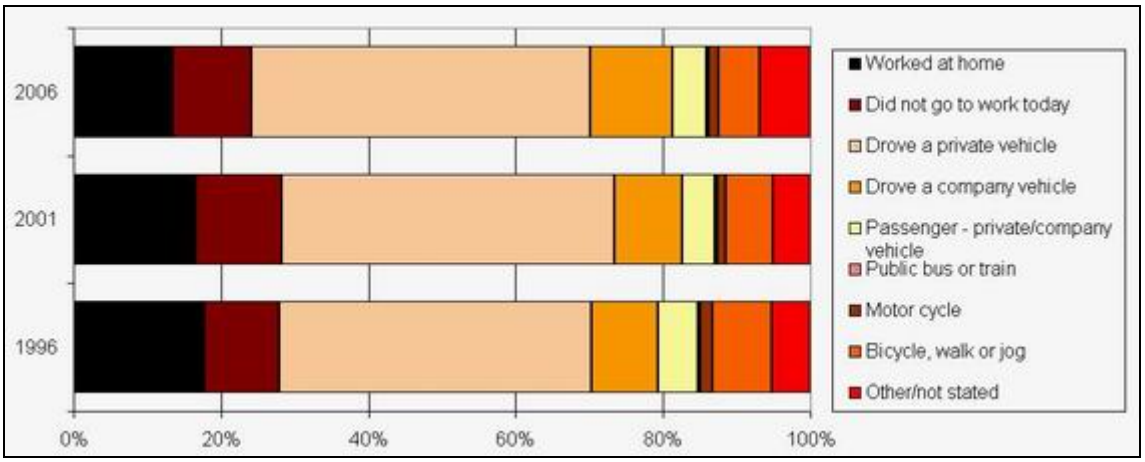

Figure 4: How people got to work on census day, as a percentage of the number of people surveyed for 1996, 2001 and 2006 (NZ Statistics census data).

17.3 What is being done?

Policy documents

The following regional policy documents are used to guide transport management and infrastructure development in Northland:

Regional Policy Statement

The Regional Policy Statement (RPS) for Northland' (NRC 2002) objective relating to transport is to maintain and enhance the safety and efficiency of the region's transport networks, while minimising adverse environmental effects.

The RPS is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Plans-and-Policies/Regional-Policy-Statement/Regional-Policy-Statement/

Northland Regional Land Transport Strategy 2006 – 2016

The purpose of the Regional Land Transport Strategy (RLTS) is to provide a planning framework for the development of land transport in the region for the next 10 years and the vision is "Northland has an integrated, equitable, responsive, safe and sustainable land transport system".

The Regional Land Transport Strategy (RLTS) is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Regional-Land-Transport-Strategy/

Regional Passenger Transport Plan

The Regional Passenger Transport Plan (NRC 2005) was produced in September 2003 and reviewed in May 2005, and is incorporated as part of the RLTS. The purpose of the Regional Passenger Transport Plan (RPTP) is to set out objectives and policies for public transport services in the region and to specify the services that are considered necessary. From there local funding issues and constraints can be worked through in order to source financial assistance from Land Transport NZ.

Regional Road Safety Plan

In response to the National Road Safety objectives released in October 2003, the Northland Regional Road Safety Plan 2004 -2010 was produced (NRC 2004). The Regional Road Safety Plan is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Road-Safety/

Marsden Point Rail link

In late 2006, the Regional Council completed a regional capability review of infrastructure in Northland in order to identify gaps or constraints to regional growth and to prioritise the need for further infrastructure development. One of the six top priorities identified is the establishment of a rail link to the Marsden Point area (Oakleigh to Marsden Point Rail Link Project), in an attempt to move more heavy freight by rail.

It is recognised there is additional capacity within the rail network to accommodate increased freight movement by rail. Where appropriate, rail freight can provide a more fuel efficient and environmentally sustainable alternative to road based freight transport. However, rail tunnels would need to be enlarged in order to accommodate new “High Cube” containers which are increasingly being used.

This rail link is vital given the contributions the developing Bream Bay area makes to Northland’s economy through its port and other businesses. A feasibility study completed in 2003 for the Regional and Whangarei District Councils found that developing the link would offer a host of benefits, including helping to ease forestry-related traffic volume and congestion problems on the region’s roads. The study also found development of the rail link could create the equivalent of more than 200 fulltime jobs during the construction period and inject millions into the local economy. It could also help attract other big businesses to the Marsden Point area.

The proposed Oakleigh to Marsden Point rail link leaves the existing North Auckland Line (NAL) at Oakleigh approximately 25km south of Whangarei City. It travels eastwards for approximately 16km to link with the new deepwater port at Marsden Point.

The first stage in this project is the designation of the land needed for the rail link corridor. Designating the route means that the land will be available in the future when the funding is identified to build the railway. If this is not done, it means that a subdivision or other development may take place in the meantime on the land that makes up the preferred route.

More information on the Oakleigh to Marsden Point rail link project is available on the Regional Council website at the following link:

http://www.nrc.govt.nz/Your-Council/Council-Projects/Marsden-Point-Rail-Link/

Heavy traffic volumes

The first report on heavy traffic volumes in the Northland region was completed in 2001 to identify trends and routes for heavy traffic. Opus was commissioned by the Northland Regional Council to review and update the previous Heavy Traffic Volumes Report prepared in 2001. This report was completed at the end of 2006 and is discussed in more detail above. The report is available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Heavy-Traffic-Volumes-Report/

Monitoring

The Northland Regional Council recognises and monitors the adverse environmental effects created by both the transport infrastructure and the modes of transport utilised through its Regional Land Transport Strategy.

Section 175(e) of the Land Transport Act 1998, which sets the guidelines for the compilation, states that the Regional Land Transport Strategy must avoid, to the extent reasonable in the circumstances, adverse effects on the environment.

A Regional Land Transport Strategy Annual Report, detailing the action taken for the year, is forwarded to both the Regional Land Transport Committee and the Ministry of Transport. Some of the monitoring actions pertaining to environmental outcomes over the last five years include:

Number of vehicles and average age registered in Northland

Overall the number of vehicles per capita licensed in Northland in 2006 was slightly above the NZ average, but cars registered in Northland was lower at about 0.5 per capita compared with 0.55 nationally. The number of trucks registered in Northland is well above the NZ average on a per capita basis (Beca 2007). The annual growth rate in vehicles licensed between 2001 and 2006 has averaged 5% in Northland compared with 3.2% nationally.

Number of locations where noise and vibration are an issue

Noise generated by land transport modes is generally the most significant man-made source of noise in the region. On the open road the engine and exhaust system are the most prevalent sources of vehicle noise. In the urban environment deceleration, braking and acceleration become a significant source of noise. Other noise arises from the interaction between tyres and the road surface, and from different types of loads (e.g. stock crates).

Number of locations where landscape, natural, historical and cultural value and ecosystems are being actively managed

Provision for the protection of landscape, scenic, historical, environmental and cultural values is incorporated into the planning and implementation of major roading projects every year. This is carried out through the Regional and District Council resource consent process.

Increase in freight transported by rail

As discussed above there has been a decrease in the amount of freight transported by rail with the recent closure of Port Whangarei and the use of the new Marsden Point Port. This could change in the future with the proposed rail link to Marsden Point.

Number of campervan effluent disposal sites

There are currently 62 sites throughout Northland (MFE 2007). These are listed on the Ministry for the Environment's website at the following link:

http://www.mfe.govt.nz/publications/waste/finding-a-dump-station-in-nz-dec05/html/page1.html

Number and distribution of stock truck effluent dump sites

The WDC is currently constructing a stock truck effluent dumping site on Rewarewa Road, Whangarei, near SH1. This should be completed in 2007/2008. Potential sites in Kaipara and Far North Districts are still being investigated.

Reduction in weeds and litter on roadside

Litter removal is a component of Transit's State Highway maintenance contract. However, household rubbish dumped at stock-pile sites and rest areas is an increasing problem for which Transit seeks assistance from the district councils. Weed removal is ongoing with

mowing/spraying and clearing contractors now operating wider edge coverage along the road corridor.

Total mobility

Total mobility is a nation-wide scheme aimed at assisting people with impairments to become more mobile and active in the community. There is currently a scheme operating in Whangarei and investigations underway to expand the scheme to other areas. Every year there are approximately 30,000 passenger trips in Whangarei under the Total Mobility Scheme (NRC 2006).

For more information refer to the following link on the council website:

http://www.nrc.govt.nz/Transport/Total-mobility/

17.4 Where to from here?

Draft strategies

The Walking and Cycling Strategy and Traffic Demand Management Strategy are both currently being drafted. The Regional Walking and Cycling Strategy sets out the regional actions that the agencies responsible (including the district councils and Transit NZ) can undertake to promote walking and cycling in Northland.

The Traffic Demand Management focuses on reducing demand for private vehicle use by using planning policy, land use, school and workplace travel plans. Funding will be increased for sustainable transport such as bus services, cycling and walking as part of these travel plans.

Proposed actions

Listed below are some of the actions that the Regional Council and other agencies in Northland will be taking in an effort to mitigate the adverse effects of transportation on the environment in Northland:

Reduce sediment run-off and dust nuisance

- Increase the road seal extension programme.
- Consider the effects of dust nuisance in land use planning and provision for subdivisions.

Reduce fuel consumption

- Promotion of alternative modes such as walking and cycling, and promotion of public transport.
- Reduced congestion and travel times.

Erosion management

- Provide designated dump sites and improved stormwater management to minimise slips and scours.

Environmental awareness

- Ensure that the construction, operation and maintenance effects of land transport projects on air, water and soil quality, noise levels and environmentally sensitive sites are considered.

Stock effluent disposal

- Support the adoption of the Code of Practice for the Minimisation of Stock Effluent on Roads by all members of the industry.

Roadside stormwater management

- Review the provisions in the Regional Water and Soil Plan for Northland (NRC 2007) for roads and car parks in relation to stormwater discharges. Improved storm water management to minimise slips and scours.

Roadside litter

- Provide refuse facilities for roadside litter management and increased education/enforcement (including management of roadside dumping of vehicles). Priority areas are key tourist routes.

Vehicle emissions

- Investigate the use of the Environmental Capacity Analysis process (as recommended in the Vehicle Fleet Emissions Control Strategy) as part of everyday management of the roading networks.
- Ensure the provision of low vehicle emissions on subsidised public passenger vehicles.
- Develop a strategy to address the results of air pollution monitoring procedures, particularly Whangarei's historical carbon monoxide exceedences and the contribution of traffic to urban PM10 concentrations.
- Encourage the reduction in vehicle emissions from private vehicle use by promoting alternative transport modes.

Campervan effluent disposal sites

- Investigate opportunities for increased campervan effluent disposal sites.

Urban severance management

- Support the implementation of measures to reduce and/or slow traffic throughout Northland towns and beach settlements, and where appropriate promote heavy traffic by-passes.

Landscape, heritage and urban design

- Make provision for the protection of landscape, historical and cultural values when undertaking the construction, maintenance and operation of the land transport network.
- Promote the urban design protocol.

Cultural sites

- Recognise the significance of cultural sites and the negative impact the construction, maintenance and operation of the land transport network can have on such sites and mitigate the effects.

Pest plant management in road corridors

- Support improvement of regional pest plants management alongside road corridors.

Promotion of rail

- Where appropriate, encourage increased use of rail as a relatively fuel-efficient and cleaner mode of freight and passenger transport.

17.5 What can you do to help?

There are several ways you can help to reduce the impacts of transportation on Northland's environment and people, including:

- Have your car serviced regularly. Do not allow your car to smoke excessively.
- Use public transport or lift clubs whenever possible.
- Try to walk or cycle instead of using the car. Not only is this better for the environment but it is good for your health.
- Create and assist with walking school buses for children.
- Encourage your school or place of employment to provide showers and lockers for those persons walking or cycling, and bike racks or an area to safely leave your bike.
- Drive carefully and considerately on beaches and sand dunes.
- Dispose of any litter in rubbish bins or wait to you have access to one.
- If driving a campervan, use the designated campervan effluent disposal sites. For more information refer to the following brochure available on the Ministry for the Environment website at the following link:

  http://www.mfe.govt.nz/publications/waste/finding-a-dump-station-in-nz-dec05/html/page1.html

17.6 References

Baynham, P. (2002). *Air Pollutant Emissions in the Northland Region*. Unpublished report prepared for Northland Regional Council.

Beca. (2003). *Oakleigh – Marsden Point Rail Link Project: Tracks for Growth.* Report prepared for NRC and WDC by Beca Carter Hollings and Ferner Limited.

Beca. (2007). ***Draft working paper:*** *Northland Transport Network Study – Network Status.* Report prepared for Northland Regional Council by Beca Infrastructure Limited.

MFE. (2007). *Finding a Dump Station in New Zealand.* Published by Ministry for the Environment. Available on the Ministries website at the following link:

http://www.mfe.govt.nz/publications/waste/finding-a-dump-station-in-nz-dec05/html/page1.html

NRC. (2002). *Regional Policy Statement for Northland.* Produced by the Northland Regional Council. Latest version and current plan changes are available on the Regional Council's website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Plans-and-Policies/Regional-Policy-Statement/

NRC. (2004). *Northland Regional Road Safety Plan 2004 - 2010.* Available on the Regional Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Road-Safety/

NRC. (2005). *Regional Passenger Transport Plan.* Published by Northland Regional Council.

NRC. (2006). *Regional Land Transport Strategy for Northland 2006 – 2016.* Available on Northland Regional Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Regional-Land-Transport-Strategy/

NRC. (2007). *Heavy Traffic Volumes Report, February 2007.* Report published by the Northland Regional Council. Available on the Council website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Transport-publications/Heavy-Traffic-Volumes-Report/

NRC. (2007). *Regional Water and Soil Plan for Northland.* Produced by the Northland Regional Council. Whangarei: New Zealand. Latest version and current plan changes are available on the Regional Council's website at the following link:

http://www.nrc.govt.nz/Resource-Library-Summary/Plans-and-Policies/Regional-plans/Regional-Water-and-Soil-Plan/

Wilton, E. (2007). *Air Emission Inventory – Whangarei 2006*. Report prepared by Environet Limited, Christchurch, for Northland Regional Council.