

## EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Northland for the next 10 years are set out in Table N1. For forecast purposes only, Transit has anticipated an indicative level of regional distribution funding. Final allocations of regional distribution funding will be determined annually.

These forecasts of expenditure are based on a 10-year plan of maintenance and improvements, including projects for which funding is already committed. The timeframe for the development and construction of the improvements proposed in the 10-year forecast is indicative only and is likely to change depending on the project's importance within the context of the regional land transport strategy, its national priority, the resolution of any local concerns and property issues.

The Northland 10-year state highway forecast seeks to protect and preserve the existing asset, improve route efficiency and safety to, from and within the Northland Region, and to improve road safety generally.

Major features of the forecast are:

- › completion of the sealing of the remaining section of SH1 from Waitiki Landing to Cape Reinga
- › Stage 2 of the Kamo Bypass
- › Akerama Curves Realignment and passing lane
- › Matakoho Realignment
- › Katetoke/Oakleigh Safety Improvement
- › realignments and seal widening to improve safety or route efficiency
- › safety improvements in Kaingaroa Village on SH10, with construction scheduled to commence in 2005/06
- › upgrade of the intersection of One Tree Point Road with SH1 leading to and from Marsden Point Port
- › further safety improvement schemes for construction in the next three years including small rural realignments, rural intersection upgrades, seal widening and guardrails
- › passing lanes on SH1 between Pakaraka and Kaiwaka and one more passing lane on SH14 for development and construction in the next three years, together with one passing bay and extensions to three existing passing lanes on SH1
- › cycling and walking facilities at a number of different locations for construction in the next three years
- › Whangarei Stock Effluent Disposal facility.

## KEY REGIONAL TRANSPORT ISSUES

Through Northland's regional land transport strategy, long term council community plans, and Transit's state highway forecast, local and central government is aiming for a sustainable land transport system that meets the objectives of the New Zealand Transport Strategy (NZTS) and the Land Transport Management Act (LTMA), i.e. assisting economic development, assisting safety and personal security, improving access and mobility, protecting and promoting public health and ensuring environmental sustainability.

To achieve a sustainable land transport system we need to consider both land use and transport trends and behaviour. In this respect regional and local growth strategies (or emerging views where strategies have not been written) and planning documents are critical to supporting regional land transport strategies.

In meeting the objectives of the NZTS and LTMA the key regional transport issues for the Northland region include:

- › secure, efficient & safe transport corridors, especially between Auckland and Whangarei
- › forestry traffic – over the next 5 to 10 years forestry harvesting is expected to increase with much of it expected to be exported through the Marsden Point Port facilities
- › tourist traffic, particularly on the Twin Coast Highway network linking the Bay of Islands, Cape Reinga, and the Waipoua Forest
- › road safety:
  - » of particular concern is the separation, or safe interaction, of heavy freight traffic from general traffic (including tourist traffic)
  - » spillages from stock trucks.

### TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

The terrain in Northland is often difficult, causing the alignment of state highways to be generally quite winding and hilly. Northland also has a diverse geology resulting in areas of unstable soft rock

formation ("Onerahi Chaos"). This, together with an almost tropical climate of high rainfall, results in some lengths of the state highway having an uneven rough surface. Transit will continue to seek engineering solutions to permanently stabilise such areas.

Intensified land use, particularly around Kerikeri and west of Whangarei, and growing traffic volumes are placing increasing demands on state highways. The result is a need to improve the alignment of highways and provide more passing lanes, especially on SH1 between the intersection with SH10 at Pakaraka and Ross Rd north of Wellsford.

Improvements are also required on logging routes to accommodate the predicted increases in logging traffic from Northland forests to Marsden Point Port. Proposed improvements include the provision of passing lanes, seal widening, and the upgrade of intersections where logging trucks enter the state highway network. Innovative low-cost solutions to the latter will be required due to the relatively short periods when logging trucks will generally use these intersections.

The locations of possible Northland projects in the 10-year forecast are shown in Figure N. The expected cost and possible timeframe for the development and construction of these projects is indicated in Table N2.

The timeframe for the development and construction of the improvements proposed in the 10-year forecast is indicative only and is likely to change depending on the use of additional funding from central government (known as 'regional distribution funding') to advance activities. While Transit anticipates it will have further expenditure from regional distribution funding this is yet to be fully determined. Indicative construction start dates are based on expected funding levels if 50 percent of regional distribution funding for Northland was allocated to state highways, spread evenly over 10 years.

Large improvement projects (with construction costs of more than \$3M) have been planned for 10 years while projects with construction costs of less than \$3M are proposed over the next three years.

## Efficient and Safe Transport Corridors

### (SH1, Kaitaia to Pakaraka to Wellsford)

There is a significant concern about the growing volume of forestry traffic, particularly on SH1 from Pakaraka to Marsden Point Port. A proposed alternative is to have up to one-third of the logs transported by rail but this would require a new line from Oakleigh to Marsden Point. Notwithstanding the rail alternative possibility, Transit is upgrading the highway including realignment works and passing lanes.

Projects currently under construction or recently completed include:

- › SH1: Realignment at Oakleigh including two new bridges
- › SH1: Huatau Slips Reconstruction
- › SH1: Mangamuka to Rangiahua Slip Repairs.

Transit envisages that, eventually, SH1 between Whangarei and One Tree Point Road will have to be upgraded to four lanes. In the meantime, access will need to be strictly controlled to avoid compromising safety on this section of highway.

### Bypasses

Kamo Bypass Stage 2 is scheduled for development and construction within the 10-year forecast in order to improve the efficiency in this transport corridor.

### Realignments

The following realignments of SH1 are scheduled to improve safety and route efficiency:

- › SH1: Bends South of Kawakawa
- › SH1: Akerama Curves Realignment, north of Whangarei
- › SH1: Snake Hill Realignment, north of Whangarei

### Safety Improvements

Various safety improvements are scheduled within the next three years as noted below, including an upgrade of the intersection of One Tree Point Road with SH1 leading to and from Marsden Point Port.

- › SH1: One Tree Point Road Intersection Upgrade
- › SH1: Saleyards Rd North Intersection Improvement, north of Whangarei
- › SH1: Loop Rd North to Smeatons Hill Safety Improvement, south of Whangarei
- › SH1: Springfield Rd to Oakley Service Station Safety Improvements, south of Whangarei
- › SH1: Mangapai River North Safety Improvement, south of Whangarei
- › SH1: Mangakaramea Rd to Waipu Gorge Rd Safety Improvements, south of Whangarei
- › SH1: Martins Bend Safety Improvement, south of the Brynderwyn Hills
- › SH1: Kaiwaka to Schiska Rd Seal Widening, south of Kaiwaka
- › SH1: Schiska Rd to Topuni Bridge Seal Widening, south of Kaiwaka
- › SH1: Topuni Bridge to Ross Rd Seal Widening, south of Kaiwaka
- › SH1: Plantation North Realignment, south of Kaiwaka.

### Passing Lanes

A number of passing lanes have either been completed recently or are under construction on SH1 north and south of Whangarei. They include:

- › SH1: Longhill Southbound Passing Lane, south of Kawakawa
- › SH1: Uretiti Rd Northbound Passing Lane, north of Waipu
- › SH1: Brook Rd Northbound Passing Lane, south of Waipu.

To further progress the goal of providing passing lanes at five-kilometre intervals on high-volume highways

in Northland, especially on SH1 between the intersection with SH10 at Pakaraka and Ross Road north of Wellsford, the three-year plan for small and medium-size projects includes the construction of a further 11 passing opportunities on SH1 north and south of Whangarei, as follows:

- › SH1: Watercress Creek Southbound Passing Lane, between Kawakawa & Hikurangi
- › SH1: Waiomio Northbound Passing Lane
- › SH1: Callaghan Rd Northbound Passing Lane, between Kawakawa & Hikurangi
- › SH1: Callaghan Rd Southbound Passing Lane, between Kawakawa & Hikurangi
- › SH1: Waiotu North Northbound Passing Lane Extension
- › SH1: The Braigh Southbound Passing Lane, north of Waipu
- › SH1: Kaiwaka Southbound Passing Lane.

One further westbound passing lane is scheduled for construction on SH14 at Newton Road, east of Maungatapere.

Other projects are provided for in the Forecast depending on progress with other projects and the availability of regional distribution funding:

- › SH1: Hukerenui Southbound Passing Lane Extension
- › SH1: Old North Rd Southbound Passing Lane, north of Hikurangi
- › SH1: Mountain Rd Southbound Passing Lane Extension, north of Kaiwaka
- › SH1: Brynderwyns North Downhill Passing Bay.

### Tourist Routes

Stage 1 of the sealing of SH1 from Waitiki Landing to Cape Reinga was completed during 2004/05. The remainder of the sealing of this 20 kilometre-section of state highway is included within the 10-year forecast. Cape Reinga is a nationally significant tourist destination and sealing will meet tourist expectations and improve safety.

### Road Safety

Transits plans to continue removing 'out of context' sections of state highway, roadside hazards, and provide a network of stock truck effluent disposal facilities. A number of large, medium and smaller activities has been proposed. These include realignments, intersection improvements, seal widening, and guardrails.

### Rural Highways

In addition to those projects noted above other safety projects recently completed in Northland include:

- › SH1: Waipapakauri Safety Improvements, north of Awanui
- › SH10: Kaingaroa Hill Realignment, west of Taipa
- › SH10: Kerikeri Intersection Safety Improvement.

Other small and medium-sized safety and route efficiency projects proposed for construction within the next three years are:

- › SH10: Kaingaroa Safety Improvements, west of Taipa
- › SH10: Bulls Gorge Realignment, south of Kerikeri
- › SH11: Lily Pond Bridge to Quarry Seal Widening, west of Paihia
- › SH10: Puketona Intersection Safety Improvements
- › SH14: Millington Road to Kara Road Safety Improvement, west of Whangarei.

Other projects are provided for in the Forecast depending on progress and the availability of regional distribution funding:

- › SH12: Wairau River S-Bend Realignment, east of Ruawai
- › SH12: Matekohe Realignment.

### Stock Effluent Disposal

One stock effluent disposal facility for the Northland region is scheduled in the Whangarei District.

## Walking and Cycling

A number of walking and cycling projects are planned for construction to provide new or upgraded pedestrian or cyclist facilities in Whangarei, Dargaville, and other mainly urban areas in Northland. These include:

- › construction and widening of footpaths
- › construction of footbridges, pedestrian crossings and refuges
- › erection of pedestrian and cyclist signs
- › seal widening to provide for cyclists.

## MAINTENANCE and OPERATIONS

To meet current and future levels of service and to preserve the asset in 2005/06, Transit proposes to:

- › resurface approximately 67 kilometres of highway
- › reconstruct approximately 14 kilometres of highway with 9.4 kilometres of seal widening
- › continue with the programme of slips management
- › continue trialling surfacing materials with a view to improving skid resistance
- › continue the programme of minor safety improvements, including carriageway lighting, signage, small rural realignments, intersection upgrades, and guardrails.

**Table N1**

### Forecasts of Expenditure on Maintenance and Improvements

#### Northland Region

	05/06 (\$M)	06/07 (\$M)	07/08 (\$M)	08/09 (\$M)	09/10 (\$M)	10/11 (\$M)	11/12 (\$M)	12/13 (\$M)	13/14 (\$M)	14/15 (\$M)	Total (\$M)
<b>Maintenance</b>											
Structural	8.5	8.8	9.6	10.0	10.4	10.9	11.4	11.9	12.4	12.9	106.6
Corridor	3.4	3.6	3.9	4.0	4.2	4.4	4.6	4.8	5.0	5.2	43.2
Professional Services	3.4	3.5	3.8	3.9	4.1	4.3	4.5	4.7	4.9	5.1	42.2
Property Management	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	10.6
Preventive Maintenance	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	3.0
Emergency Works	1.5	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	11.5
Sub-total	17.8	17.9	19.4	20.2	21.1	22.1	23.0	24.1	25.1	26.3	217.1
<b>Improvements</b>											
Minor Safety Projects	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.8	1.9	15.3
Committed Projects	1.6	0.0	0.0	0.0	-	-	-	-	-	-	1.6
New Projects	3.3	10.5	11.0	11.3	15.3	21.7	20.7	15.0	13.6	18.0	140.4
Property Purchase	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	13.4
Walking & Cycling	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Sub-total	7.3	13.1	13.7	14.1	18.2	24.7	23.8	18.3	17.0	21.6	171.7
<b>Total</b>	<b>25.1</b>	<b>31.0</b>	<b>33.1</b>	<b>34.3</b>	<b>39.3</b>	<b>46.8</b>	<b>46.9</b>	<b>42.4</b>	<b>42.1</b>	<b>47.8</b>	<b>388.9</b>

Note: regional distribution funding for state highways forecast to be \$39M over 10 years