

## EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Waikato for the next 10 years are set out in Table WK1. Transit anticipates it will have further expenditure from regional distribution funding, but this is yet to be determined.

These forecasts of expenditure are based on a 10-year plan of maintenance and improvements, including commitments. The timeframe for the development and construction of the improvements proposed in the 10-year plan is indicative only, and is likely to change, depending on the use of regional distribution funding to advance projects.

The Waikato state highway 10-year plan seeks to protect and preserve the existing asset, improve route efficiency and safety between Auckland and Cambridge, and improve road safety generally.

Major features of the plan are:

- › Mercer to Longswamp section of the Waikato Expressway, currently under construction
- › Longswamp to Rangiriri central median safety barrier, currently under construction
- › Early design of the Cambridge Bypass
- › major rural realignments including:
  - › Mangatawhiri Deviation on SH2, for a construction start in 2004/05
  - › Maramarua Deviation on SH2
- › Hamilton city bypasses comprising:
  - › Avalon Drive Bypass between Rotokauri Road and Norton Road, for a construction start in 2004/05
  - › Te Rapa Bypass
- › a new, two-lane Kopu Bridge on SH25
- › four intersection improvements in Hamilton city
- › continued development of a funding package with the Taupo District Council, for the construction of an eastern bypass of Taupo
- › 13 safety improvements on rural highways in the next three years comprising small rural realignments, seal widening, bridge widening and intersection improvements
- › 29 more passing lanes for development and construction in the next three years
- › three new stock effluent disposal facilities
- › five cycling improvement projects.

## KEY REGIONAL TRANSPORT ISSUES

The key regional transport issues in Waikato include:

- › route efficiency and safety between Auckland and Cambridge on SH1 and between Pokeno and the turn-off to SH25 on SH2
- › forestry traffic – over the next 5 to 10 years the forestry harvesting is expected to increase from 10 million to 12 million tonnes from the Central Plateau forests with much of the product being exported through the Port of Tauranga
- › tourist traffic, particularly on the Coromandel Peninsula, and on the routes linking Auckland, Waitomo Caves, Lake Taupo and Rotorua
- › 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
- › cycling – Hamilton City is built on relatively flat terrain ideally suited for cycling.

### TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

Economic growth and resultant increases in traffic demand mean that the state highway network in the Waikato will require substantial upgrading within the next 10 to 20 years. The major road corridors that are planned for upgrading to four-lane expressway standard are SH1 between Mercer and Cambridge (Waikato Expressway), and SH2 between Pokeno and Mangatarata (Maramarua Expressway).

The locations of possible Waikato projects in the 10-year plan are shown in Figure WK. The expected cost and possible timeframe for the development and construction of these projects is indicated in Table WK2. The timing of projects could be advanced depending on the allocation of regional funding. A final policy has yet to be determined by Transfund New Zealand (as at July 2004).

Large improvement projects (with construction costs more than \$3M) have been planned for 10 years and

small and medium-sized projects (with construction costs of less than \$3M) have been planned for three years.

### Efficient and Safe Transport Corridors

#### Waikato Expressway

Good progress has been made in recent years on progressing the construction of the Waikato Expressway. The Rangiriri to South of Ohinewai section and the Huntly Internal Bypass have recently been completed. The very difficult and expensive section between Mercer and Longswamp is currently under construction, along with the installation of a median barrier between Longswamp and Rangiriri.

It is possible that other projects will be advanced, such as the Cambridge, Ngaruawahia and Rangiriri bypasses, or added to the 10-year plan depending on the allocation of regionally distributed funding from Transfund.

Meanwhile the designation for the Cambridge Bypass is in place with design proposed for 2004/05 and Transit is completing the designations for the remaining sections of the Waikato Expressway, including the Huntly and Hamilton bypasses.

#### Maramarua Expressway

On SH2 between Pokeno and Mangatarata it is proposed to construct two-lane deviations (with sections of four lanes to provide strategic passing opportunities) of the townships of Mangatawhiri and Maramarua, consistent with an ultimate scheme to four-lane this section of highway. A realignment at Grahams Stream Bridge is also being investigated. While the four-lane Maramarua Expressway is a long-term project, improvements to the alignment of the existing highway, together with passing lanes and traffic management improvements, will be undertaken in the meantime to improve safety and provide more frequent passing opportunities.

#### Kopu Bridge

Designations and resource consents for replacement of

the Kopu Bridge on SH25 have been obtained. In 2004/05 Transit proposes to undertake design of the new bridge.

### Urban Areas

Work is proceeding with the Hamilton City Council on developing a number of schemes within Hamilton City including a Te Rapa Bypass, an Avalon Drive Bypass, the Church to Avalon Drive four-laning and improvements to the southern approaches to Hamilton. The Avalon Drive Bypass is required urgently to relieve congestion on Avalon Drive between Rotokauri Road and Norton Road. The Te Rapa Bypass will be required, in part, to support the extensive growth planned in Hamilton north, including the Rotokauri Growth Area. The regional preference is for the Te Rapa Bypass to be completed before the Ngaruawahia Bypass.

Within Hamilton City improvements are also proposed at the following intersections:

- › SH1: Killarney Road
- › SH1: Hillcrest
- › SH1: Morrinsville Road (SH26)
- › SH3: Ohaupo Road/Kahikatea Drive (SH1).

Another urban intersection improvement is the SH1: Victoria/Queen Street Intersection, Cambridge.

### Bypasses

The Taupo District Council has been developing a scheme for an eastern bypass of Taupo between the SH1/5 junction, north of Wairakei, and SH1, north of Taupo Airport. A designation has already been obtained for this bypass and the Taupo District Council is ready to proceed with design work.

The Taupo District Council proposes to construct the first three stages of the bypass between Taupo Airport and Broadlands Road, with an expectation that Transit will assume responsibility for the fourth stage between Broadlands Road and the SH1/5 junction, including a crossing of the Waikato River. Transit is in discussions with Taupo District Council on alternative funding arrangements for the fourth stage to enable this project to proceed.

A bypass of Whitianga on SH25 has been completed incorporating waterways that have severed the existing highway as part of a residential development in Whitianga. This bypass was funded primarily by the developer.

Consideration has previously been given to bypasses of Ohaupo and Te Awamutu/Kihikihi on SH3, and Tirau on SH1. At this stage, none of these projects is included in the 10-year plan.

### Passing Lanes

In accordance with the strategy of providing passing lanes at 5-kilometre intervals on high-volume highways, the three-year plan for small and medium-sized projects includes a number of passing lanes on SH1 between Ngaruawahia and Hamilton and also between Cambridge and the Desert Road and on SH2 between Pokeno and Mangatarata. The plan includes additional passing lanes on SH3 between Te Kuiti and Mokau and on SH25A between Kopu and Hikuai on sections of highway with limited passing opportunities due to rolling terrain.

### Road Safety

Transit plans to continue removing 'out of context' sections of state highway, roadside hazards, and provide a network of stock truck effluent disposal facilities.

### Rural Highways

A large rural realignment under construction is SH5 Tapapa Curves Realignment, east of Tirau.

Other rural realignments proposed for construction in the next 10 years are:

- › SH1: Piarere to Oak Tree Realignment, south of Cambridge
- › SH23: Raglan Deviation West Realignment, west of Hamilton
- › SH25: Otakeao Stream South Realignment, north of Thames
- › SH39: Kiwi Road Realignment, north of Otorohanga
- › SH4: Tikitiki Road North Realignment, south of Te Kuiti

- › SH25: Te Kouma Bay Realignment, south of Coromandel
- › SH31: Owaikura Road North Realignment, west of Otorohanga.

Bridge widening or replacement projects in the next three years include:

- › SH30: Waimiha Bridge Replacement, east of Te Kuiti
- › SH25: Pepe Stream Bridge Replacement, Tairua
- › SH1: Karapiro Stream Bridge Widening, south of Cambridge
- › SH1: Matarawa Bridge Widening, south of Tokoroa.

Improvements are also proposed to the following rural areas in the next three years:

- › SH26: Tahuna Road Intersection, north of Morrinsville
- › SH26: Intersection with SH27 Intersection, east of Morrinsville.

A number of other safety improvements may be possible depending on regional distribution funding from Transfund.

### Stock Effluent Disposal Facilities

Three stock effluent disposal facilities in the Waikato area are proposed. The facilities will be located at:

- › SH1: Putaruru
- › SH3: Te Kuiti
- › SH26: Morrinsville (in conjunction with the Matamata Piako District Council).

### Walking and Cycling

Separate cycle facilities at the narrow control gate bridge at the northern entry to Taupo are progressing as are pedestrian improvements at the Kiddle Drive intersection with SH5 in Taupo.

A number of other walking and cycling projects are proposed for urban areas in the Waikato over the next three years.

In Hamilton a separate cycleway to the Waikato Institute of Technology is planned on Avalon Drive to cater for student cyclists. This cycleway will link with existing facilities. Improvements will also be made at Massey Street in Hamilton West to better cater for cyclists.

Transit will discuss with the Waikato District Council a cycleway for the western side of the Ngaruawahia Bridge on SH1 in Ngaruawahia to discourage the use of the adjacent rail bridge, which is a significant local safety issue.

Improvements to the pedestrian facilities in Te Awamutui on SH3 are also planned as are cycle improvements to Victoria Street in Cambridge.

### MAINTENANCE and OPERATIONS

In addition to maintaining current and future levels of service, and preserving the asset, Transit proposes to:

- › improve road condition information to road users at critical points on the network, especially forward warning of traffic delays for southbound traffic on the Bombay Hills
- › improve road condition information in snow and ice-affected areas and for flood-prone sections of SH25
- › further develop ice-prediction technology including thermal mapping of the central plateau and provide more weather stations
- › extend the use of Calcium Magnesium Acetate, a relatively inert de-icing agent
- › maintain hazard-response plans and warning systems particularly in relation to the Mt Ruapehu lahar risk
- › maintain and improve skid resistance of the network targeted at further reduction in wet-weather crashes
- › implementation of a seismic retrofitting programme for a small number of 'at risk' bridges in the region.

## Table WK1

### Forecasts of Expenditure on Maintenance and Improvements

#### Waikato Region

	04/05 (\$M)	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)	Total (\$M)
<b>Maintenance</b>											
Structural	32.3	25.7	26.3	30.3	30.4	30.7	29.0	31.1	29.4	32.0	297.2
Corridor	12.4	11.2	11.9	12.5	12.6	13.1	13.6	13.9	14.5	15.2	130.9
Professional Services	6.2	7.6	8.1	8.6	8.9	9.5	10.1	10.6	11.1	11.9	92.7
Property Management	1.3	2.1	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.9	23.3
Preventive Maintenance	0.1	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.2	1.2	9.5
Emergency Works	1.0	2.7	2.7	3.0	3.1	3.1	3.0	3.1	3.0	3.1	27.8
Sub-total	53.4	50.1	52.1	57.6	58.3	60.0	59.3	62.5	61.8	66.4	581.5
<b>Improvements</b>											
Minor Safety Projects	4.1	3.6	3.7	4.1	4.2	4.3	4.2	4.5	4.4	4.7	41.7
Committed Projects	29.9	25.1	0.0	0.0	-	-	-	-	-	-	55.0
New Projects	17.6	25.9	32.4	26.8	29.8	37.4	58.2	67.1	74.7	77.9	447.8
Property Purchase	2.5	2.6	2.7	2.7	2.8	2.9	3.0	3.1	3.2	3.3	28.7
Walking & Cycling	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.0
Sub-total	54.4	57.4	39.1	34.0	37.1	44.9	65.7	74.9	82.6	86.2	576.2
<b>Regional Distribution Funding</b>	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	
<b>Total</b>	107.8	107.5	91.2	91.5	95.3	104.9	125.0	137.4	144.4	152.6	1157.7

tbd = to be determined