

EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Northland for the next 10 years are set out in Table N1.

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 are indicative only, and are subject to change, for example, as a result of changes in funding availability and delays in project development.

Major features of the Northland 10-year plan are:

- › slip repairs on SH1, between Mangamuka and Rangiahua, north of Ohaeawai for a construction start in 2004/05
- › six more passing lanes on SH1, north and south of Whangarei, for construction in the next three years, in addition to four passing lanes currently under construction or approved for construction
- › a trial project to improve clear zones on SH1, south of Whangarei
- › a further 11 safety improvements for construction in the next three years including small rural realignments, rural intersection upgrades, seal widening and guardrails
- › safety improvements in Kaingaroa village on SH10, for construction in 2004/05, in addition to the rural realignment on Kaingaroa Hill currently under construction
- › realignment of the Katetoke to Oakleigh section of SH1, south of Whangarei, deferred for a construction start until 2010/11
- › sealing of the remaining section of SH1F from Waitiki Landing to Cape Reinga deferred for a construction start until 2010/11
- › intersection upgrades on SH1, south of Whangarei, and on SH14, west of Whangarei, as regional development projects, subject to the current review of the Northland Regional Transport Plan
- › walking and cycling facilities at 14 different locations for construction in the next three years.

BACKGROUND

The terrain in Northland is often difficult, causing the alignment of state highways to generally be 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 intense 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 Kawakawa and Wellsford.

Improvements are also required on logging routes to accommodate the future “wall of wood” from Northland forests. The annual timber harvest of 1 million tonnes is predicted to increase threefold within the next few years, most of which will be transported on the state highway network to the new port at Marsden Point. Proposed improvements include provision of passing lanes, seal widening, upgrading approaches onto bridges, and the upgrade of intersections where logging trucks enter onto 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.

Recent Improvements

A number of improvements have recently been made to the state highway network in Northland. The most significant improvements have been:

- › SH1: McLeods / Piano Realignment, Hikurangi
- › SH1: Kamo Bypass, Whangarei
- › SH1: Lagoon Bridge Passing Lane, south of Whangarei

A number of passing lanes have also been constructed, particularly on SH1 north of Whangarei, in accordance with Transit’s strategy of providing passing lanes at 5km intervals on high-volume highways.

Current Improvements

Projects currently under construction in Northland include:

- › SH1F: Waiharara Safety Improvements, north of Awanui
- › SH1: Fairburn Bends South Realignment, south of Kaitaia
- › SH1: Otonga Flat South Southbound Passing Lane, north of Whangarei
- › SH1: Hukerenui South Realignment, south of Kawakawa

Funding has also been approved for the following projects with construction due to commence shortly:

- › SH1: Mangapai River Bridge Passing Lane, south of Whangarei
- › SH1: Hewlitt Road Passing Lane, south of Whangarei
- › SH10: Kaingaroa Hill Realignment, west of Taipa

PROPOSED IMPROVEMENTS

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

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 3 years.

Major Projects

Major rural state highway improvements proposed for construction within the next 10 years are:

- › SH1: Mangamuka to Rangiahua Slip Repairs, north of Ohaeawai
- › SH1: Katetoke to Oakleigh Realignment, south of Whangarei
- › SH1F: Waitiki Landing to Cape Reinga Seal Extension

Repairs are proposed to a 15km section of SH1 between Mangamuka and Rangiahua to improve route security and the condition of the road surface. These works will include stabilising existing and potential slips, and reconstruction of the pavement. Within this section, slip repairs at Huatau have been scheduled as a separate project.

It is envisaged that, eventually, SH1 between Whangarei and One Tree Point Road will need four-laning. In the meantime, access will need to be strictly controlled to avoid compromising safety on this section of highway. The only major improvement proposed in the 10-year plan for this section of highway is a 1.2km realignment between Katetoke and Oakleigh. While this project is currently scheduled for a construction start in 2010/11, the crash rate on this section of highway will be monitored and the priority of this project will be kept under review.

It is proposed to seal the remaining 20km unsealed section of SH1F from Waitaki Landing to Cape Reinga. Cape Reinga is a nationally significant tourist destination and sealing will meet tourist expectations and improve safety. This project is also scheduled for a construction start in 2010/11.

Two major projects not included in the 10-year plan are the Snake Hill Realignment on SH1, north of Whangarei, and the Matokohe Realignment on SH12, east of Ruawai which includes the replacement of two single-lane bridges. The crash rate at these two sites will also be monitored and the priority of these projects will be kept under review.

Safety Projects

Small and medium-sized safety projects proposed for construction within the next three years are:

- › SH1: Mangamuka Bridge No. 58 Guardrail, south of the Mangamukas
- › SH1: Saleyards Road North Intersection Upgrade, north of Whangarei
- › SH1: Loop Road North to Smeatons Hill Safety Improvements, south of Whangarei
- › SH1: Mangapai River North Safety Improvements, south of Whangarei
- › SH1: One Tree Point Road Intersection Upgrade (Stage 2), north of Ruakaka
- › SH1: Piroa Stream to SH12 Intersection Safety Improvements, south side of Brynderwyns
- › SH1: Plantation North Realignment, south of Kaiwaka
- › SH10: Kaingaroa Village Safety Improvements, west of Taipa
- › SH12: Maropiu Guardrail, north of Dargaville
- › SH12: Scotty's Bend Guardrail, north of Dargaville

Transit proposes to provide clear run-off zones on a 7km section of SH1, south of Whangarei as a trial safety project over the next three years. This project is currently underway and further funding will be allocated to this project in 2003/04.

Passing Lanes

A number of passing lanes are currently under construction north and south of Whangarei or construction funding has been approved. To further progress the goal of providing passing lanes at 5km intervals on high-volume highways in Northland, especially on SH1 between the intersection with SH10 at Pakaraka and Ross Road north of Wellsford, the 3-year plan for small and medium-size projects includes the construction of a further six passing lanes on SH1 north and south of Whangarei, as follows:

- › SH1: Longhill Southbound Passing Lane, south of Kawakawa
- › SH1: Otonga Flat North Northbound Passing Lane, north of Whangarei
- › SH1: Flyger Road Southbound Passing Lane, south of Whangarei
- › SH1: Tauroa Stream Bridge Northbound Passing Lane, south of Whangarei
- › SH1: Uretiti Road Northbound Passing Lane, south of Whangarei
- › SH1: Brook Road Northbound Passing Lane, south of Whangarei

Regional Development

In accordance with the Northland Regional Transport Plan, two intersection upgrades to improve safety for logging trucks accessing the state highway have been scheduled for construction in the 3-year regional development plan, as follows:

- › SH1: Loop Road Intersection North, south of Whangarei
- › SH14: Otaika Valley Road / Mangakahia Road Intersection, west of Whangarei

The Northland Regional Transport Plan is currently under review and this review may affect the timing of these projects.

Walking and Cycling

A number of walking and cycling projects have been planned for construction in the next three years to provide new or upgraded pedestrian or cyclist facilities in Whangarei and Dargaville, and in 14 other mainly urban areas in Northland. These works 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

In addition to undertaking maintenance and improvements to meet current and future levels of service, and to preserve the asset, Transit proposes to:

- › improve the management of more than 200 slip sites on the Northland network, including long-term repairs to 12 sites in the coming year
- › wherever practicable, widen seal widths in conjunction with significant works
- › trial new materials and surfacing techniques to find more durable skid-resistant surfaces
- › continue with guardrailing plans for bridge approaches and steep side slopes
- › resurface 126km and rehabilitate 14km of the network in 2003/04.

Table NI**Forecasts of Expenditure on Maintenance and Improvements****Northland Region**

	03/04 (\$M)	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)	Total (\$M)
Maintenance											
Structural	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	98.9
Corridor	2.6	2.8	2.9	3.0	3.2	3.3	3.5	3.6	3.8	3.9	32.6
Professional Services	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.1	3.1	28.6
Property Management	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
Preventive Maintenance	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	3.2
Emergency Works	4.6	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	13.5
Sub-total	19.2	15.9	16.3	16.7	17.2	17.6	18.0	18.5	18.9	19.4	177.8
Improvements											
Minor Safety Projects	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	6.4
Committed Projects	0.3	0.0	0.1	0.0	-	-	-	-	-	-	0.4
New Projects	7.4	8.7	9.3	8.2	8.1	7.9	7.8	8.8	11.6	13.4	91.2
Property Purchase	0.7	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	5.7
Walking & Cycling	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Regional Development	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.0
Sub-total	9.6	10.4	11.1	9.9	9.9	9.7	9.7	10.6	13.5	15.3	109.6
Total	28.7	26.3	27.4	26.7	27.0	27.3	27.7	29.1	32.5	34.7	287.4