Transit New Zealand's 10-year State Highway Plan and Forecast for 2007/08 to 2016/17

Incorporating Transit's 2007/08 Land Transport Programme

TRANSIT NEW ZEALAND
ARARAU AOTEAROA

New Zealand Government

Transit New Zealand's 10-year State Highway Plan and Forecast for 2007/08 to 2016/17

Incorporating Transit's 2007/08 Land Transport Programme



Transit New Zealand

Wellington, New Zealand

June 2007

ISSN 1176-3140

CONTENTS

FOREWORD

With year one complete in our new five-year plan of works we can be justifiably proud of the significant progress that has been made. We are showing good progress towards delivering all the large state highway improvement projects outlined in the plan. When we began this journey we were under no illusions that this would be the most challenging work programme in our history. Whilst progress is good, we are fully aware of the need to maintain this momentum.

Key events for 2006/07 were:

- Completion of the Central Motorway Junction in Auckland
- Auckland ramp signalling installation started
- Church to Avalon Drive construction started in Hamilton
- Tauranga Harbour Link contract let
- Transmission Gully Investigation underway
- Tumai – Waikouaiti Realignment substantially complete
- Christchurch Main Road North 4 Laning stage 2 completed

Along the way we have worked diligently to ensure we meet our statutory objectives under the Land Transport Management Act, while continuously looking for drivers to achieve value for money from the Government's substantial investment in state highways.

Hence in the coming year we are planning the greatest number of project investigation, design and construction starts ever. As well as the large projects, we will be undertaking some 150 small to medium sized projects. We are very aware that state highways are an essential part of New Zealand's transport network and a critical ingredient in our recipe for social, environmental and economic development.

To those who join us on this journey of investment in New Zealand's growth, we seek your continued support.

Bryan Jackson
Acting Chairperson

INTRODUCTION

Continued stability

This year's State Highway Plan and Forecast for 2007/08 is year two of the five-year plan of works announced in June 2006, made possible by Budget 2006 which provided a five-year revenue guarantee for the National Land Transport Programme. The guarantee covered state highway maintenance and administration, a cost escalation guarantee for state highway improvements (2006/07 to 2010/11), and in particular, a list of key deliverables. The cost guarantee covers the cost of escalation above that allowed for in the 2006/07 published forecast.

The objectives for the remainder of the plan are certainty and stability in the delivery of all projects and activities. The aim is to ensure that funding issues do not delay progress on nationally and regionally significant state highway initiatives.

We anticipate that in 2008, the Government will consider the extension of the revenue and cost guarantee as part of the planned Update process. This process will extend the five-year plan to six years, and to create a new six- year plan possibly starting in 2009/10. The Update process will need to address the sustainability of revenue to deliver the remainder of Transit's 10-year Forecast, and any cumulative effects of higher than forecast cost escalation.

Drivers

The National State Highway Strategy 2007, which will be published in July 2007, will become the key document to drive future forecasts. It sets out how we will ensure the state highway network contributes to the New Zealand Transport Strategy objectives of economic development, safety and personal security, access and mobility, public health and environmental sustainability. The strategy defines Transit's long-term direction by having a view of the network some 30 years into the future. Appropriate allowances have been made to support growth and development based on existing long term plans. We recognise the need to take a different approach to 'predict and provide' for traffic growth and instead focus on the following visions and goals:

- Ensure state highway networks make the optimum contribution to an integrated multi-modal land transport system
- Provide safe state highways for all users
- Enable improved and more reliable access and mobility for people and freight
- Improve the contribution of state highways to economic development
- Improve the contribution of state highways to the environmental and social wellbeing of New Zealand

In conjunction with the National State Highway Strategy, Transit's integrated and sustainable approach is to be captured in its updated Planning Policy Manual. This manual sets out Transit's approach to highway planning and how that interacts with growth and land use planning undertaken by local authorities. Integrating transport and land use is a key method of helping to ensure sustainable development because it enables adverse effects, such as environmental pollution or pressures on limited resources, to be addressed through collaborative planning and funding processes. The intent of the Planning Policy Manual is, therefore, to facilitate sustainable development, by seeking closer alignment between land use changes and the transport infrastructure and operational commitments needed to ensure the main transport links are effective for the long term future of New Zealand.

Transit has also adopted an Environmental Plan that makes clear that environmental and social responsibilities are key parts of how we operate and make balanced decisions. We use these considerations to determine what we do rather than treat them as effects to be mitigated.

Each project listed in this Forecast has a component that focuses on ensuring environmental sustainability, ranging from utilising local materials to reducing haulage costs and emissions to providing noise mitigation to address the adverse public health effects of road traffic noise. For example, projects such as the Auckland Harbour Bridge Stormwater Upgrade significantly reduce the amount of contamination affecting nearby water bodies.

Urban design is an integral part of our approach to planning, constructing and maintaining state highways because it helps to ensure state highways are sensitive to the surrounding environs, whether they be rural or urban. Many of the projects listed in this Forecast, such as the Bell Block Bypass and the Christchurch Southern Motorway, have undergone urban design reviews to ensure the outcomes are consistent with the New Zealand Urban Design Protocol and the New Zealand Transport Strategy.

Transit endorses the principles of Travel Demand Management as an integral component of an environmentally sustainable approach to land transport planning. Projects such as the Advanced Traffic Management Systems project in Auckland have multiple benefits including improving energy efficiency and vehicle emission performance.

Value for Money

While the Budget 2006 provided greater stability for state highway construction, Transit is ever mindful of the need to achieve value for money. As part of its continuous improvement programme Transit has put in place a number of measures for controlling cost, including:

- Regularly reviewing all aspects of projects, including examining project standards, to ensure they are "fit for purpose" and that there is no "gold plating"
- The scrutinising and approving of significant project scope changes by Transit's senior management team and Board. This includes reviewing the conditions from councils for project designations, and rejecting those that are considered onerous, unaffordable and inconsistent with NZTS objectives.
- Broadening Transit's procurement procedures, including consideration of direct purchasing of materials and/or plant, where this achieves demonstrable savings
- Early involvement of contractors in project development to work with the designers to help with practical suggestions on scope and design to reduce costs.

What are the differences in the Forecast?

This year sees the introduction of two new large projects into the Forecast. The first is the Prebensen Drive/Hyderabad Road Interchange in Napier. This project will assist regional economic development by providing an efficient route to the Port of Napier. The other project is the realignment of Buckle Street in Wellington (SH1) to redevelop the National War Memorial Park. This $10M state highway project is being funded direct from Government ($8M central and $2M local) and managed by Transit.

In addition, two large state highway projects have been redefined as local roading projects. These are the Kapiti Western Link Road and the East Taupo Arterial. We have adjusted the forecast by removing the cashflows associated with both projects. Land Transport NZ has reassigned these funds to local roading.

Maintenance

Although we are indicating a higher level of funding for maintenance over the next 10 years than we forecast in 2006/07 (which partially offsets the effect of higher than forecast escalation), there is an impact on our works programme. For 2007/08 this will be achieved by deferring planned upgrades of bridges and other structures to meet current standards. Asset preservation and maintaining existing operations remains paramount. There will be no compromising Transit's contribution to road safety and environmental responsibility where this is an integral part of performing our maintenance activities.

The Update process will address any further funding issues.

Consultation

This year's public consultation process highlighted a number of common themes across the country. Nationally, the highest number of submissions related to supporting the provision of safe walking and cycling activities. In response to this, Transit has adopted a Walking and Cycling Policy and is targeting walking and cycling activities that complement local authority urban strategies and are transport focused rather than recreationally focused.

There was also keen interest in the provision of passing opportunities. Transit's new Passing and Overtaking Opportunities Policy comes into operation this year and will enable us to explore a greater range of options across the state highway network.

Improved liaison with councils and key stakeholders was a common theme in the submissions. Transit welcomes this feedback and will be working more closely with these groups to ensure better alignment with them during the annual planning process undertaken in the spring.

As highlighted in 2006, even with much improved funding confidence, issues around designations, resource consents, material shortages and community agreement on projects, will continue to affect what can be delivered and by when. It continues to be a top priority for Transit to resolve these issues promptly with help from our transport partners, especially local government and communities.

Auckland Western Ring Route and tolling

In April 2007 the Board considered the outcome of the Auckland Western Ring Route (WRR) tolling consultation. It resolved not to proceed further with Transit's toll proposal pending resolution of alternative funding, which has been shown at $800M in the 10-year Financial Forecast. Transit is continuing to plan for completion of the route by 2015, with the continued support of the Auckland region.

Sector Reviews

In August 2006 a final report from the Ministerial Group on Roading Costs was published. This report considered the drivers of cost increases in the roading sector by looking at construction costs, technical standards, tendering processes and other inputs. The report recognised that urban construction had increased in scale and complexity. Environmental mitigation, property costs and material costs have been fundamental influences on price increases for state highway construction.

Next Steps

Government subsequently commissioned the Next Steps project to consider the performance, roles and responsibilities of the Ministry of Transport and the two Crown entities, Land Transport New Zealand and Transit New Zealand. The final review has now been reported and the Government has recently announced that it will establish short to medium term funding and investment priorities for the sector through the development of a Government Policy Statement, and the merger of Transit New Zealand and Land Transport New Zealand. The aim of these changes is to support a cohesive and efficient sector. Detailed implementation of these proposed changes is being worked through, and hence the consequences of the review have not been included in this forecast.

Table 1 – 10-year Financial Forecast

Maintenance and Improvements

	07/08 ($M)	08/09 ($M)	09/10 ($M)	10/11 ($M)	11/12 ($M)	12/13 ($M)	13/14 ($M)	14/15 ($M)	15/16 ($M)	16/17 ($M)	Total ($M)
Maintenance (Escalated) [2]	Note 1										
Road Maintenance and Operations	210	231	250	264	278	294	310	327	345	364	2,873
Road Renewals	168	185	200	211	223	235	248	262	276	291	2,300
Property Management	14	14	16	17	17	18	19	21	22	23	180
Preventive Maintenance	5	5	6	6	7	7	7	8	8	9	68
Emergency Works	32	34	36	37	39	40	41	42	43	45	389
Sub-Total [2]	429	469	508	535	564	594	626	659	694	732	5,811
Improvements (Escalated) [3]											
Minor Safety Projects	31	33	35	36	37	38	40	41	42	43	377
Committed Projects	452	281	120	8	0	0	0	0	0	0	861
New Large Projects	161	307	462	672	935	799	594	536	560	650	5,676
New Small & Medium Sized Projects	61	93	93	96	59	61	64	67	70	72	736
Property Purchase	96	96	58	60	45	45	66	68	70	72	676
Walking and Cycling	3	5	5	5	5	6	6	6	6	6	54
Sub-Total	804	815	773	878	1,082	949	769	718	748	844	8,380
Community Road Safety Programme	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	5.5
Administration	49.4	52.9	56.0	57.7	59.4	61.2	63.1	65.0	66.9	68.9	600.5
Total Expenditure	**1,283**	**1,338**	**1,338**	**1,471**	**1,706**	**1,605**	**1,459**	**1,442**	**1,510**	**1,645**	**14,797**
Capital injection for ALPURT B2	87	39									126
Auckland Western Ring Route Completion by 2015 [4]			140	180	180	180	120				800
Funding to be considered by update process [5]					242	224	99				565
NLTP anticipated funding [5]	1,196	1,299	1,198	1,291	1,284	1,201	1,240	1,442	1,510	1,645	13,306
Total Revenue	**1,283**	**1,338**	**1,338**	**1,471**	**1,706**	**1,605**	**1,459**	**1,442**	**1,510**	**1,645**	**14,797**

Notes:

1 The dark grey columns denote the remainder of the Government's 5-year State Highway Funding Plan announced as part of Budget 2006. This remains on track and on budget for successful completion. Escalation within this period is underwritten by the Government's cost escalation guarantee.

2 The 2006/07 Forecast provision for maintenance escalation at 3% per year has been updated to Land Transport New Zealand's forecasts of 7% for 2008/09, 6% for 2009/10, 3% per year for 2010/11 and beyond.

3 The provision for escalation beyond 2010/11 has been set at 3% where used.

4 In accordance with the 2006/07 Forecast Transit continues to plan for opening the Auckland Western Ring Route by 2015. This milestone date produces a funding requirement of $800M for which alternative funding sources are under investigation.

5 Land Transport NZ has advised of lower revenue forecasts post the current 5-year state highway funding package, and reduced funding to small & medium sized projects, property purchase, and the start of two projects which complement, but are not essential to, the Western Ring Route. Rather than adjust the programme now the remaining shortfall against previously anticipated NLTP revenue is a matter to be considered in the planned Update process.

Table 2 – State Highways Activities for 2007/08 (Land Transport Programme)

		Activity Name	Priority (P)	Indicative Start Date Quarter (Q)			Indicative Cash Flow ($,000)
Maintenance		Road Maintenance and Operations	P1	Q1			210,000
		Road Renewals	P1	Q1			168,000
		Property Management	P1	Q1			14,000
		Preventive Maintenance	P1	Q1			5,000
		Emergency Works	P1	Q1			32,000
Administration			P2	Q1			49,400
Commitments		Large Projects	P3	Q1			417,000
		Small and Medium sized projects	P3	Q1			35,000
Improvements		Minor Safety Projects	P4	Q1			31,000
		New Projects (As listed below)	P5	Q1			126,000
Region	**SH**	**Activity Name**	**P5**	**Indicative Start Date Quarter (Q)**	**Phase ***	**Total Phase Cost ($,000)**	**Indicative Cash Flow ($,000)**
Auckland	1	AHB Moveable Lane Barrier		Q1	C	10,197	10,197
Auckland	18	Hobsonville Deviation		Q1	C	194,830	22,660
Auckland	16	Te Atatu to Royal 6L		Q2	D	2,300	824
Auckland	16	Waterview to Rosebank 8L		Q1	I	2,100	1,133
Auckland	16	Waterview to Rosebank 8L		Q2	D	2,800	733
Auckland	20	Waterview Connection		Q1	D	50,000	6,180
Auckland	16	Rosebank to Te Atatu 8L		Q1	I	927	927
Auckland	Var	ATMS Stage IV – Stage 2		Q1	I	180	144
Auckland	Var	ATMS Stage IV – Stage 2		Q2	D	2,805	2,513
Auckland	Var	ATMS Stage IV – Stage 2		Q4	C	76,700	4,635
Auckland	16	Punganui Stream Bridge		Q1	D	120	62
West Coast	6	Arahura Bridge Replacement		Q1	C	20,000	3,605
Auckland	1	Newmarket Viaduct		Q1	D	6,000	4,120
Auckland	1	Newmarket Viaduct		Q2	C	150,100	17,348
Auckland	1	Newmarket Viaduct to Greenlane Aux L		Q1	D	1,750	1,750
Christchurch		Christchurch TDM		Q4	C	3,100	412
Bay of Plenty		Tauranga Central Corridor TDM		Q1	I	106	106
Bay of Plenty		Tauranga Central Corridor TDM		Q2	D	618	618
Wellington	1	Basin Reserve Improvements		Q3	I	1,000	103
Wellington		Transmission Gully		Q1	D	65,000	20,600
Waikato	1	Hamilton Southern Links		Q2	I	4,000	2,060

* I = Investigation D = Design C = Construction

Table 2 – State Highways Activities for 2007/08 (Land Transport Programme) continued

Region	SH	Activity Name	Priority P5	Indicative Start Date Quarter (Q)	Phase *	Total Phase Cost ($,000)	Indicative Cash Flow ($,000)
Waikato	1	Te Rapa Bypass		Q4	D	4,750	464
Auckland	1	Warkworth Stage 1		Q1	D	846	630
Auckland	1	Warkworth Stage 1		Q1	C	15,000	2,575
Auckland	1	Papakura Interchange Upgrade Stage 1		Q1	I	1,545	1,545
Waikato	2	Maramarua Deviation		Q2	D	3,000	515
Aukland	2	Kopuku Realignment		Q2	I	1,500	412
Waikato	1	Huntly Bypass		Q4	D	9,000	3,502
Waikato	1	Ngarauwahia Bypass		Q2	D	8,000	1,030
Bay of Plenty	2	Tauranga Eastern Motorway		Q2	D	20,300	3,039
Waikato	1	Hamilton Bypass		Q4	D	9,000	3,090
Waikato	1	Rangiriri Bypass		Q3	D	2,000	206
Northland	10	Bulls Gorge Realignment		Q1	D	250	155
Waikato	1	Piarere – Oak Tree Bend Realignment		Q4	C	12,000	515
Bay of Plenty	36	Pyes Pa Bypass		Q2	D	1,100	1,100
Hawke's Bay	50A	Hawke's Bay Expressway Southern Extension		Q1	D	220	155
Otago	6	Kawarau Falls Bridge Replacement		Q1	I	400	206
Hawke's Bay	2	Waipukurau Overbridge Realignment		Q1	D	206	206
Canterbury	1	Chch Northern Arterial Rural		Q3	I	1,480	824
Canterbury	1	Memorial Ave Intersection		Q4	I	515	515
Wellington	2	Rimutaka Corner Easing (Muldoon's)		Q1	D	72	72
Man-Wanganui	2	Papatawa Realignment		Q3	D	425	103
Northland	1	Kamo Bypass Stage 2		Q2	D	650	206
Otago	1	East Taieri Bypass		Q1	I	400	206
Waikato	1	Long Swamp to Rangiriri 4L		Q4	D	2,400	927
Hawke's Bay	2	Matahorua Gorge Realignment		Q2	D	1,000	515
Hawke's Bay	2	Prebensen Drive / Hyderabad Rd IC		Q2	I	309	309
West Coast	6	Gates of Haast		Q1	I	800	650
Bay of Plenty	2	Katikati Bypass		Q2	I	618	618
Bay of Plenty	2	Omokoroa Roundabout		Q2	I	464	464
Wellington	2	SH2/58 Grade Separation		Q4	D	2,100	258
Nelson-Tasman	6	Hope Saddle Realignment		Q2	I	300	103
Gisborne	35	Tolaga to Gisborne S/W		Q1	I	155	155
Improvements		Small and Medium sized projects	P6	Q1			61,000
		Strategic Studies	P6	Q2			9,000
		Investigations from Strategic Studies	P6	Q4			4,000
		Strategic Plan Initiatives	P6	Q3			22,000
		Property Purchase	P6	Q1			96,000
		Walking & Cycling	P6	Q1			3,000

* I = Investigation D = Design C = Construction

Notes:

1. Indicative durations of large projects are shown in the regional tables
2. The priority is a requirement of the LTMA and is listed in relative terms

GUIDE TO REGIONAL TABLES – **EXAMPLE**

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

Green icons represent committed project phases.
Black icons represent programmed project phases.

Identification of problem and potential solutions.

Engineering design of works to be undertaken, including cost estimation.

Construction of final project.

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
	ATMS Stage IV-Central Motorway Junction	Economic Development	1.4			
16	Waterview to Rosebank 8L	Economic Development	$$$			
1	Victoria Park Tunnel ®	Economic Development	$$$$			
	SMALL AND MEDIUM PROJECTS		**Total Phase Cost**			
1	AHB Structural Upgrade	Safety and Personal Security	0.8			
1	Drury Interchange Traffic Signals	Economic Development	0.8			
	Passing Lanes					
1	Hoteo River Sth Bd PL	Safety and Personal Security	1.8			
	Stock Effluent Disposal Facilities					
1	Wellsford SEDF	Environmental Sustainability	0.3			
	Walking & Cycling					
16	Westgate Pedestrian Facility	Public Health	$			

Appendix 1 lists large projects and their objectives to be achieved under the Act, as well as options and alternatives considered.

Denotes funding sources as shown on the bottom of the page.

Committed construction. Value of remaining works to be funded by Land Transport NZ.

Estimated total cost of project (all phases).

Projects in investigation or design may not necessarily proceed to construction.

Total cost of either investigation, design or construction phase.

Committed phase. Value of remaining works to be funded from Land Transport NZ.

Phase Cost. Cost of phase shown by symbol.

The phase shown in the Land Transport Programme may continue into the plan years. In this case the icon will remain dark. The icons shown after these phases, and those shown in the forecast years are shown grey. This is to represent indicative timings given that the outcomes of earlier phases are not fully known.

Appendix 2 gives a generic list of how projects contribute to the purposes of the Land Transport Management Act, as well as options and alternatives considered.

§ in conjuction with third party contributions outside NLTP funding §§ capital injection

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

(N/C) denotes national funding, however Land Transport NZ has indicated possible crown funding

(N/R) denotes national funding, however Land Transport NZ has indicated possible regionally distributed funding

Where Land Transport NZ has yet to determine the funding source, it has been denoted as either N/C, N/R, R or C. This is to be consistent with the NLTP.

COMMONLY USED ABBREVATIONS WITHIN THE REGIONAL TEXT AND TABLES

Project Names

AHB	Auckland Harbour Bridge
ATTOMS	Auckland Transit Traffic Operation Management System
CMJ	Central Motorway Junction
SWATT 2010	South Waikato and Taupo Target 2010
UH Br	Upper Harbour Bridge
ALPURT	Albany to Puhoi realignment

Project Type

4L	Four laning
6L	Six laning
8L	Eight laning
ATMS	Advanced Traffic Management Systems
Aux	Auxiliary
BPL	Bus Priority Lane
EF	Stock Effluent Disposal Facility
Ext	Extension
Imp.	Improvement
I/C	Interchange
I/S or Int	Intersection
Ped	Pedestrian
PL	Passing Lane
Realign	Realignment
SE	Seal Extension
SI	Safety Improvement
SVB	Slow Vehicle Bay
TDM	Travel Demand Management

Project Related Information

CCTV	Close Circuit Television
SH	State Highway
Var	various
VMS	Variable Message Signs
Nth	north
NB or Nth Bd	northbound
Sth	south
SB or Sth Bd	southbound
West Bd	westbound
East Bd	eastbound

Related Documents and Organisations

LTMA	Land Transport Management Act 2003
MOT	Ministry of Transport
NZTS	New Zealand Transport Strategy
NLTP	National Land Transport Programme
RLTS	Regional Land Transport Strategy

KEY TRANSPORT ISSUES

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

- Road Safety: of particular concern is the separation of heavy freight traffic and other traffic (including tourist traffic), and crashes on bends
- Secure, efficient and safe transport corridors, especially between Auckland and Whangarei
- Forestry traffic: over the next few years forestry harvesting is expected to increase with much of it expected to be exported through Northport at Marsden Point
- Tourist traffic: particularly on the Twin Coast Highway network linking the Bay of Islands, Cape Reinga and the Waipoua Forest
- Increased land development, particularly at Ruakaka, Marsden Point, Kerikeri and Waipapa, Bay of Islands, Doubtless Bay, Opononi and Omapere, and Mangawhai. This is resulting in growing traffic volumes, leading to the need for some improvements to the strategic roading network, including state highways
- Increasing congestion through the Whangarei urban area, including on state highways
- Lack of passing opportunities
- Spillages from stock trucks.

How we plan to address these key issues

The terrain in Northland is often difficult, causing state highways to be generally quite winding and undulating. Northland also has a diverse geology resulting in areas of inherently unstable rock formation known as Onerahi Chaos Breccia. This, together with an almost sub tropical climate of high rainfall, results in some lengths of 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 and south 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.

Transit will also continue to liaise with councils and developers to ensure that an integrated approach is taken in relation to development and transportation needs.

Improvements are also required on key forestry routes to accommodate the predicted increases in forestry traffic from Northland forests to Northport at Marsden Point. Proposed improvements include the provision of passing lanes, seal widening, and the upgrade of intersections where forestry trucks enter the state highway network. Innovative low-cost solutions to the latter will be required because logging trucks generally use intersections only for the relatively short harvesting period.

Road Safety – Secure and Efficient Transport Corridors

Transit plans to continue to improve the safety and efficiency of state highways. A number of large and small to medium activities have been proposed. These include realignments, intersection improvements and seal widening and guard rails. In conjunction with local authorities, further stock truck effluent facilities are being investigated.

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 now underway and is expected to be completed in 2009/10. Cape Reinga is a nationally significant tourist destination and sealing will meet tourist expectations and improve safety.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. In addition to the many passing lanes already completed, Transit plans to progress further passing lanes on SH1 between Auckland and Kaitaia and on SH14. A passing and overtaking opportunities study will be undertaken on these routes.

Walking and Cycling

Four activities for walking and cycling have been proposed in the Northland region to provide new or upgraded pedestrian or cyclist facilities in Otaika, Kaikohe, Kawakawa and from Paihia to Haruru Falls.

Strategic Studies

We propose to undertake a strategic study between Wellsford and Whangarei to improve our long term planning and ensure good decision-making.

Maintenance and Operations

Maintenance activities make up a large proportion of the forecast expenditure in the Northland region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 73km and reconstruct 28km of highway
- Continue a programme of slip site monitoring and management and make provision for emergency reinstatements
- Carry out corridor maintenance including litter and graffiti removal, routine vegetation control, road marking, maintenance of signs, traffic signals and carriageway lighting maintenance and incident response
- Continue a programme of minor safety improvements, including drainage improvements, intersection upgrades, seal widening and installing guardrails, in addition to planned capital improvements to address safety issues.

NORTHLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
1	Waitiki Landing to Cape Reinga Seal Ext Stage 2 ®	Access and Mobility	13.5			
1	Akerama Curves Realignment & Sth Bd PL ®	Safety and Personal Security	0.3			
1	Kamo Bypass Stage 2 ®	Access and Mobility	0.1			
10	Bulls Gorge Realignment ®	Access and Mobility	$			
1	Akerama Curves Realignment & Sth Bd PL ®	Safety and Personal Security	$$			
1	Kamo Bypass Stage 2 ®	Access and Mobility	$$			
1	Snake Hill Realignment ®	Safety and Personal Security	$$			
12	Matakohe Realignment ®	Access and Mobility	$$			
1	Brynderwyn Hill Realignment ®	Access and Mobility	$$			
1	Port Marsden Highway Interchange	Economic Development	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
1	Plantation North to Topuni Bridge SI	Safety and Personal Security	0.1			
1	Safety Retrofit	Safety and Personal Security	0.4			
12	Wairau River S-Bend Realignment	Safety and Personal Security	2.2			
10	Kaingaroa Safety Improvement	Safety and Personal Security	0.7			
1	One Tree Point Intersection Upgrade Stage 2	Safety and Personal Security	3.0			
10	Puketona SH11 Intersection Improvement	Safety and Personal Security	2.0			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

NORTHLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
1	Plantation North Realignment	Safety and Personal Security	0.1			
1	Bends South of Kawakawa Realignment	Safety and Personal Security	0.2			
1	Mountain Rd Seal Widening	Safety and Personal Security	0.1			
1	Loop Rd North to Smeatons Hill Sl	Safety and Personal Security	0.5			
1	Springfield Rd to Oakleigh Service Station Sl	Safety and Personal Security	1.7			
1	SH14 Intersection Improvement	Safety and Personal Security	0.1			
1	Saleyards Rd North Intersection	Safety and Personal Security	0.1			
	Passing Lanes					
1	Waiomio Nth Bd PL	Safety and Personal Security	2.5			
1	Kaiwaka Sth Bd PL	Safety and Personal Security	0.1			
1	Hukerenui Nth Bd PL Extension	Safety and Personal Security	0.1			
1	Old North Rd Sth Bd PL	Safety and Personal Security	0.1			
1	Waiotu North Nth Bd PL	Safety and Personal Security	0.1			
1	Callaghan Rd Nth Bd PL	Safety and Personal Security	1.5			
14	Newton Rd West Bd PL ®	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

NORTHLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Stock Effluent Disposal Facilities		**Total Phase Cost**			
1	Whangarei District SEDF	Environmental Sustainability	0.1	Design		
	Walking & Cycling					
12	Kaikohe Pedestrian Facility	Public Health	$			
1	Otaika Pedestrian Crossing Upgrade	Public Health	$			
11	Paihia to Haruru Falls Pedestrian Facility	Public Health	$			
11	Kawakawa Township Footpath	Public Health	$			
	Strategic Studies					
	SH1 Whangarei to Kaitaia Passing Opportunities Plan					
	SH1 Wellsford to Whangarei					

Projects in investigation or design may not necessarily proceed to construction.

KEY TRANSPORT ISSUES

Transit will work closely with the Auckland Regional Transport Authority (ARTA) and regional and district councils to ensure there is alignment of priorities, to relieve congestion and support regional growth strategies.

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

- Severe congestion, resulting in variability in trip times
- Road safety, in particular on SH1 and SH16 north of Auckland where there is a lack of passing opportunities
- Traffic growth, driven by population growth
- An alternative route to SH1 through Auckland
- Secure, efficient and safe transport corridors, especially between Auckland & Whangarei and SH2 within the Auckland region
- The impact of land use development because of continuing intensification within the Metropolitan Urban Limit (MUL)
- Increased land use development at growth nodes such as Warkworth and Kumeu leading to the need for improvements to the roading network
- Passenger transport infrastructure requirements.

How we plan to address these key issues

Economic growth and resulting increases in traffic demand mean that the state highway network in Auckland will need to be extended and existing lengths substantially upgraded within the next 10 to 20 years to relieve congestion and support the Auckland Regional Growth Strategy.

Travel Demand Management (TDM) is a combination of activities that together seek to influence travel behaviour. TDM methods include travel plans, traveller information systems and traffic management techniques such as ramp signalling. Transit endorses the principle of TDM as an integral component of a sustainable approach to land transport and is actively investigating opportunities for TDM.

Improvement works encompass the entire region with particular focus on the Auckland Central Corridor, Western Ring Route and the Northern Busway, including the recently completed and opened Esmonde Road Interchange.

Corridors outside the Auckland MUL also require improvements to accommodate increases in inter-regional travel. Proposed activities include improvements to the alignment of existing two lane highways, seal widening and the provision of passing lanes.

Travel Demand Management

Ramp signalling is one of a number of travel demand management approaches that seeks to influence demand for transport or travel. Installation of signals has commenced on the Southern Motorway, with the Northwestern and Northern Motorways following as an integrated project. Signals are also included as an integral part of forward planning on all of the Western Ring Route. The overall objective is to reduce congestion, reduce journey times and improve journey time reliability during peak travel periods.

Auckland Central Corridor

Auckland Central Corridor activities cover SH1 from Albany to Manukau. Several capacity improvement projects are forecast for the next 10 years. These include projects such as the Vic Park Tunnel and Newmarket Viaduct replacement, which will add capacity to maximise the performance of the Central Motorway Junction.

Western Ring Route

The Western Ring Route (WRR) is a proposed strategic motorway running south to north through Auckland, connecting Manukau City, Auckland City, Waitakere City and North Shore City. It is made up of ten individual projects that need to be completed as a package. It will take traffic from Manukau through Waterview and Hobsonville to Albany to provide a strategic alternative to State Highway 1.

Provision for completion of the WRR has been included in Transit's State Highway Forecast, but in order to complete by 2015, as planned since August 2005, additional revenue will be needed to fund the required debt. Transit is working on the understanding that Auckland does want the WRR and wants it completed sooner (2015) than would be possible under current conventional funding.

Two projects shown in the tables have been marked to show that Land Transport New Zealand has not included the cost of these projects in the 10 year financial allocation to Transit. These projects are Constellation to Albany and Puhinui to Mangere. They remain in the forecast and will be subject to the update process for funding.

Public Transport Improvements

Transit considers and makes appropriate provision for public transport for all new projects being developed and ensures there is a close alignment with ARTA's programme. A number of bus priority lanes are being progressed in conjunction with other motorway capacity improvements.

Road Safety

Transit has identified a number of activities to improve the safety and efficiency of sections of state highways. These include realignments, intersection improvements, seal widening and lighting safety retrofits.

Passing Opportunities

Limited passing opportunities on parts of the rural state highway network lead to driver frustration and accidents. Transit plans to progress passing lanes on both SH1 and SH16 north of Auckland.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities, two new facilities are being constructed on SH1 at Wellsford and on the Bombay Hills.

Walking and Cycling

Provision for walking and cycling activities is an integral part of state highway planning. While these facilities are provided as part of improvement projects where applicable, there is one specific pedestrian facility planned for implementation in the next three years, on SH16 at Westgate.

Strategic Studies

We are proposing to undertake a number of new strategic studies for the Auckland region to improve our long-term planning and assist good decision-making. These include the Auckland Regional Growth Strategy – serving the growth nodes, the Northern Motorway study from Auckland Harbour Bridge to Albany, the SH22 & Southern Motorway study from Glenbrook to Wiri, and a study of SH20A and 20B for airport access.

Maintenance and Operations

Maintenance and operations activities make up a large proportion of the forecast expenditure in the Auckland region and are due to increase over the next 10 years because of the commissioning of capital projects. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, other asset renewals and operations activities include:

- Resurfacing 56km of multi-lane motorway
- Resurfacing 29km and reconstructing 1km of rural state highway
- Improving safety by applying high skid resistance surfacing
- Continuing to refine maintenance practices to reduce traffic disruptions and noise during the day and night
- Continuing to carry out structural and seismic strengthening of bridges, including the Auckland Harbour Bridge
- Improving techniques and response times when managing incidents on motorways.

In 2007/08 the Transit managed Traffic Management Unit (TMU), a joint collaboration between Transit and six Auckland local authorities providing 24-hour intergrated traffic management, incident management and traveller information to road users, proposes to:

- Continue to improve management of the wider impacts of the expanding motorway construction programme
- Expand the geographic coverage and improve the functionality of the motorway Advanced Traffic Management Systems
- Provide an improved traveller information service to users through the traffic website and associated services
- Increase resource levels to operate travel demand management measures, such as ramp signalling
- Continue to enhance the management of the critical arterial network by improving co-ordination of traffic signals throughout the region
- Improve asset management systems for all high technology equipment
- Improve traffic flow within the region
- Continue to improve incident management.

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
20	Mt Roskill Extension	Economic Development	97.0			
1	Northern Busway PT (Stages 1 & 2)	Economic Development	48.8			
20	Manukau Extentsion §	Economic Development	157.2			
1	Esmonde Rd Interchange	Economic Development	4.0			
18	Greenhithe Deviation	Economic Development	22.9			
Var	Advanced Traffic Management Systems Stage IV-Central Motorway Junction	Economic Development	1.4			
Var	Western Ring Route Ramp Signalling	Economic Development	9.0			
1	Southern Motorway TDM (Ramp Signalling)	Economic Development	15.0			
1	Northern Motorway TDM (Ramp Signalling)	Economic Development	13.4			
1	AHB Storm Water Upgrade	Environmental Sustainability	4.5			
20	Manukau Harbour Crossing	Economic Development	1.5			
1	Northwestern Motorway TDM (Ramp Signalling)	Economic Development	11.4			
1	Victoria Park Tunnel	Economic Development	3.1			
20	Waterview Connection	Economic Development	3.8			
Var	Advanced Traffic Management Systems Stage IV-Central Motorway Junction	Economic Development	1.4			
1	Warkworth Stage 1	Economic Development	1.1			
1	ALPURT – Sector B2 Toll Road §§	Economic Development	126			

§ in conjuction with third party contributions outside NLTP funding §§ capital injection

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Total Cost ($M) $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS (continued)					
1	Auckland Harbour Bridge Moveable Lane Barrier	Safety and Personal Security	$$			
1	Northcote to Sunnynook Auxiliary Lane	Economic Development	$$			
18	Hobsonville Deviation §	Economic Development	$$$$			
16	Te Atatu to Royal 6L	Economic Development	$$$			
16	Te Atatu Interchange West Bd Off-Ramp Upgrade	Economic Development	$$			
16	Waterview to Rosebank 8L	Economic Development	$$$			
20	Waterview Connection	Economic Development	$$$$			
20	Manukau Harbour Crossing	Economic Development	$$$$			
16	Rosebank to Te Atatu 8L	Economic Development	$$$			
Var	Advanced Traffic Management Systems Stage IV-Stage 2	Economic Development	$$$			
16	Punganui Stream Bridge Replacement	Access and Mobility	$			
1	Victoria Park Tunnel ®	Economic Development	$$$$			
1	Newmarket Viaduct ®	Economic Development	$$$$			
1	Newmarket Viaduct to Greenlane Auxiliary Lane ®	Economic Development	$$			
16	Brigham Creek Extension ® or ©	Access and Mobility	$$$			
1	Warkworth Stage 1 ® or © §	Economic Development	$$			
1	Papakura Interchange Upgrade Stage 1 ® or © §	Economic Development	$$			

§ in conjuction with third party contributions outside NLTP funding

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

Projects in investigation or design may not necessarily proceed to construction.

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH		Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
		LARGE PROJECTS (continued)					
2		Kopuku Realignment ®	Safety and Personal Security	$$$			
1		Schedewys Hill Deviation ®	Safety and Personal Security	$$$			
18	*	Constellation to Albany Interchange Upgrade	Economic Development	$$$			
		Integrated Transport Control Centre	Economic Development	$$			
20A		Kirkbride Rd Grade Separation ® or ©	Economic Development	$$$			
20	*	Puhinui to Mangere 6L	Economic Development	$$$			
		SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
1		AHB Structural Upgrade	Safety and Personal Security	0.8			
1		Stafford – Esmonde Bus PL	Safety and Personal Security	2.2			
1		Orewa Township Upgrade	Safety and Personal Security	0.3			
1		McKinney Rd Intersection Improvements	Safety and Personal Security	3.9			
1		Auckland Harbour Bridge Northern Approach Sth Bd Lane Light Trial	Economic Development	0.1			
1		Greville Rd Nth Bd Off-Ramp Left Turn Slip Lane	Safety and Personal Security	0.1			
1		Drury Interchange Traffic Signals	Economic Development	0.8			
22		Mercer to Oira Lighting Improvement	Safety and Personal Security	0.1			
1		Auckland Harbour Bridge Sth Bd Extension Structural Upgrade	Safety and Personal Security	3.8			

* projects marked as reserve in the NLTP. Subject to review in the update process

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

Projects in investigation or design may not necessarily proceed to construction.

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
1	Auckland Harbour Bridge Nth Bd Extension Structural Upgrade	Access and Mobility	3.8	Construction		
	Relocatable VMS	Economic Development	0.5	Construction		
	Moveable VMS	Economic Development	0.3	Construction		
	Portable CCTV	Economic Development	0.2	Construction		
16	Quay St – Ronayne St Upgrade	Economic Development	1.1	Construction		
1	Ellerslie Sth Bd Off-Ramp Slip Lane	Economic Development	0.4	Construction		
1	Southern/Northern Motorway Lighting Safety Retrofit	Safety and Personal Security	4.2	Construction		
16	Waitangi Bridge to Basil Orr Rd Seal Widening	Safety and Personal Security	1.1	Construction		
16	Taupaki Rd/Old North Rd Intersection Upgrade	Safety and Personal Security	2.4	Construction		
1	Takanini Interchange Upgrade	Economic Development	0.3	Investigation		
22	Glenbrook Rd Intersection Improvement ®	Safety and Personal Security	0.1	Design		
1	Wayby Valley Road Intersection	Economic Development	0.1	Investigation		
	Passing Lanes					
1	Hoteo River Sth Bd PL	Safety and Personal Security	1.8	Construction		
1	Te Hana Overbridge Nth Bd PL	Safety and Personal Security	0.1	Investigation		
1	Toovey Rd Sth Bd PL	Safety and Personal Security	3.0	Construction		
1	Sheepworld Sth Bd PL	Safety and Personal Security	1.9	Construction		
16	Kumeu No.2 Bridge West Bd PL ®	Safety and Personal Security	0.1	Investigation		

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

AUCKLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design
Investigation	Design

Committed Construction

Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
1	Mangawhai Rd Sth Bd PL	Safety and Personal Security	2.4			
1	Waitaraire Sth Bd PL	Safety and Personal Security	0.1			
	Stock Effluent Disposal Facilities					
1	Wellsford SEDF	Environmental Sustainability	0.3			
1	Bombay Hills SEDF	Environmental Sustainability	0.3			
	Walking & Cycling					
16	Westgate Pedestrian Facility	Public Health	$			

Projects in investigation or design may not necessarily proceed to construction.

Strategic Studies

SH18 Upper Harbour Corridor – Albany to Constellation

Northern Busway Extension to Orewa

Southwestern Corridor Study

SH1/16 Auckland to Wellsford

SH1 Waitemata Harbour Crossing

SH22 Strategic Study Review

Whau River Crossing

Auckland Regional Growth Strategy – Servicing the Growth Nodes

Auckland State Highway Walking and Cycling Strategy

SH20A & 20B Airport Access

Auckland State Highway Strategy

Auckland Harbour Bridge to Albany Study

KEY TRANSPORT ISSUES

In meeting the objectives of the NZTS and LTMA, the key regional transport issues for the Waikato Region include:

- Safety: the Waikato state highway network has the highest fatal crash densities in the country, 20 percent higher than any other region. It has 20 of the nation's 100 worst "black routes", with a high frequency of serious and fatal crashes
- Long-haul routes: the Waikato is part of a growth triangle linking major export hubs, population centres and tourist attractions in Auckland, Waikato and the Bay of Plenty. A number of the country's strategic corridors with high proportions of heavy vehicles go through the Waikato, contributing to a complex mix of local, inter-regional and tourist traffic
- Congestion and bottle necks: rapid population and development growth in and around Hamilton, and to a lesser extent Cambridge and Taupo, is causing congestion and increasing travel delays and transport costs for long-haul travellers, as well as a deterioration of environmental and amenity values for the communities that these long-haul routes pass through
- Large volumes of vehicles are diverting onto unsuitable alternative routes to avoid delays, with resultant impacts on safety and economic development
- Forestry traffic: over the next 5 to 10 years forestry harvesting is expected to increase from 10 to 11 million tonnes from Central Plateau forests, with much of the product to be exported through the Port of Tauranga
- Hamilton growth: there is significant pressure for commercial access and growth in northern and western Hamilton. This, combined with the development of the Crawford Street rail freight village, is putting significant pressure on the Hamilton Western Corridor, which also has a local road function. Transit will work closely with its transport partners to build on the Access Hamilton Strategy, which seeks a balance between roading, rail, passenger transport, and active modes of transport to manage demand
- Tourist traffic: particularly in Taupo and on the Coromandel Peninsula (where the number of domestic holidaymakers is also a significant issue), and on the routes linking Auckland, Waitomo Caves, Lake Taupo, and Rotorua
- Route security: flooding on the Thames Coast highway and interruption of the state highway network because of bad weather and slips, particularly on the SH1 Desert Road and on SH3 through the Awakino Gorge, has a significant economic impact nationally as well as on the Taranaki region and the local communities
- Spillages from stock trucks.

How we plan to address these key issues

The Waikato Expressway continues to be the highest priority transport issue for the region. A significant component of this Expressway between Mercer and Longswamp has been completed and further progress will be made on the remaining components over the next 10 years. This will, in time, reinforce SH1 as a preferred long haul route, together with SH29 between the Bay of Plenty and Auckland. The SH2 Maramarua Corridor and SH27 are expected to remain as attractive routes for long haul traffic in the short to medium term.

Further improvements are proposed to the Hamilton Western Corridor to compliment the works already in progress. Improvements will include the identification and protection of the strategic transport corridors in south Hamilton through the planning process. Transit will also consider a number of projects on the existing routes in the meantime to relieve congestion and improve efficiency.

Transit is also considering improvements to route security for the region on the Thames Coast and on SH3 between Taranaki and the Waikato.

A number of walking and cycling activities are also planned to complement the strategies and work of the various territorial authorities.

Studies are currently underway to look at increasing safety on the black routes. Further studies have also been identified and will be undertaken in the coming year. The following projects identified from these studies have been added to the forecast.

- Hamilton North Safety Improvement
- Hamilton Urban Safety Improvements
- SH27 Safety Improvements
- SH39 Safety Improvements
- South of Hamilton Safety Improvements

Congestion and Strategic Corridor Improvements

Transit expects to design and commence construction of the Rangiriri Bypass within five years as well as making significant progress with the Cambridge and Ngaruawahia Bypasses within 10 years. The detailed design of the Cambridge Bypass is already underway and we are planning to progress the design of the Huntly and Hamilton Bypasses. The region has expressed a preference to develop the Hamilton Bypass ahead of the Huntly Bypass. Transit will work with the region to consider tolling opportunities.

Construction of the Church to Avalon 4-lane project and the Avalon Drive Bypass project have commenced. Construction of the Te Rapa Bypass will commence subject to completion of the planning and land purchase requirements and subject to the agreement of a funding package with Hamilton City Council. The strategic routes for the Southern Links project in the south Hamilton area will also be identified and designated within five years.

A number of small intersection improvement projects are also proposed for Hamilton City, to relieve congestion and improve the efficiency of the existing network in the meantime.

A two-lane replacement for the single lane Kopu Bridge is currently being designed and its construction will be progressed to assist with the high volumes of traffic visiting the Coromandel Peninsula, particularly on weekends and public holidays.

A number of strategic studies will be undertaken to determine strategies for a number of other corridors in the Waikato.

Safety

The Maramarua Deviation was designated in 2005/06 and the design will be carried out and construction started within five years. This will complement the Mangatawhiri Deviation, currently under construction, and the double passing lanes to the east at the Heavens rest area that have just been completed. In addition investigation work is proposed for the Kopuku Road section of the highway.

A number of small safety projects will be constructed in the next five years, together with the continued “black route” safety work (including removal of roadside hazards) between Tokoroa and Taupo and at new identified sites around the Waikato.

Route Security and Availability

Design and construction is planned to follow the investigation work already undertaken for the replacement of bridges at Te Puru, Tararu and Kirikiri on SH25 and SH26 north and south of Thames as part of Project Peninsula, a multi-agency flood protection package.

The Taranaki and Waikato regions have agreed to share the cost of investigations in the Awakino Gorge, including the Awakino North Realignment using their respective $R funding. Two projects are planned to provide better road information to the travelling public in North Waikato on SH1 and SH2 and on the Coromandel Peninsula.

Passing Opportunities

Four new passing lanes are proposed in the next three years on SH1 between Tokoroa and Taupo and a further one south of Turangi. One new passing lane on SH3 at Meads Hill south of Te Kuiti is also proposed to compliment the passing lanes already built on this strategic highway over the past few years. Four sites on SH25A between Kopu and Hikuai will also be developed as either slow vehicle bays or passing lanes.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities, new facilities will be constructed on SH1 at Putaruru and on SH3 at Te Kuiti.

Walking and Cycling

Improvements for walking and cycling are proposed in Hamilton City, Cambridge, Turangi and Te Awamutu. Transit proposes to work in partnership with Hamilton City Council to jointly implement improvements to pedestrian facilities across SH1 Cobham Drive to the Hamilton City Gardens.

Strategic Studies

Transit proposes to undertake a number of strategic studies to improve our long-term planning and assist good decision-making, together with studies that lead to sustainable environmental outcomes. These studies include a Lake Taupo Stormwater Runoff Environmental Scoping Study and corridor studies of SH2/29 Pokeno to Hairini, and Hamilton State Highway Walking and Cycling Strategy.

Maintenance and Operations

Maintenance activities make up a large proportion of the forecast expenditure in the Waikato region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake 236km of resurfacing, including 25km with low noise surfacing
- Strengthen 55km of highway
- Continue improving techniques to manage highways in winter
- Target noise reduction works for specific problem areas
- Improve traffic and travel demand management in East Waikato and the Coromandel by upgrading signals and dynamic signage to provide real time information for road users in Hamilton
- Implement plant pest strategies and use special plant pest eradication programmes to target hotspots
- Implement planting to reduce future maintenance on steep slopes or batters next to highways
- Continue to implement and maintain special safety programmes (including speed activated dynamic signs) in areas or corridors with poor road safety records, including identified “black routes”
- Introduce thermal mapping of the inland network to better predict where ice will occur.

WAIKATO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
2	Mangatawhiri Deviation	Safety and Personal Security	35.6			
1	Avalon Drive Bypass	Access and Mobility	35.6			
1	Church to Avalon Drive 4L	Economic Development	7.3			
25	Kopu Bridge Replacement	Economic Development	1.5			
1	Mercer to Long Swamp 4L	Access and Mobility	1.3			
1	Cambridge Bypass 2L ®+©	Access and Mobility	4.2			
1 / 3	Hamilton Southern Links	Access and Mobility	$$$$			
1	Te Rapa Bypass (N/C)	Economic Development	$$$$			
2	Maramarua Deviation ® or ©	Safety and Personal Security	$$$			
1	Huntly Bypass (N/R)	Access and Mobility	$$$$			
1	Ngaruawahia Bypass (N/C)	Access and Mobility	$$$$			
1	Hamilton Bypass (N/R)	Access and Mobility	$$$$			
1	Cambridge Bypass 2L (N/C)	Access and Mobility	$$$			
1	Rangiriri Bypass (N/R)	Access and Mobility	$$$			
1	Piarere – Oak Tree Bend Realignment	Safety and Personal Security	$$			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

(N/C) denotes national funding, however Land Transport NZ has indicated possible crown funding

(N/R) denotes national funding, however Land Transport NZ has indicated possible regionally distributed funding

Projects in investigation or design may not necessarily proceed to construction.

WAIKATO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS (continued)					
25	Kopu Bridge Replacement	Economic Development	$$$		Construction	Construction
1	Long Swamp to Rangiriri 4L	Access and Mobility	$$$	Design	Design	
27	Kaihere Eastern Deviation ®	Safety and Personal Security	$$			Investigation
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
1	SWATT 2010 Stage 2 Tokoroa to Taupo	Safety and Personal Security	1.5	Committed Construction		
26	SH26/27 Intersection Improvement	Safety and Personal Security	0.1	Committed Design		
27	Tahuna Road Roundabout	Safety and Personal Security	0.1	Committed Design		
1	Gallagher Road Intersection	Safety and Personal Security	0.1	Committed Investigation		
2	Maramarua Expressway Safety Improvement	Safety and Personal Security	0.5	Committed Construction		
25	Te Puru Stream Bridge Replacement	Economic Development	3.8	Construction		
25	Tararu Stream Bridge Replacement	Economic Development	3.4	Construction		
26	Kirikiri Stream Bridge Replacement	Economic Development	2.7	Construction		
25	Coromandel Road Information System	Access and Mobility	0.4	Construction		
Var	Waikato Road Information System	Economic Development	1.0	Construction		
1	Hamilton North Safety Improvements	Safety and Personal Security	0.4	Investigation Design		
1	Hamilton Urban Safety Improvements	Safety and Personal Security	0.8	Investigation Design		
27	SH27 Safety Improvements	Safety and Personal Security	0.1	Investigation		
39	SH39 Safety Improvements	Safety and Personal Security	0.1	Investigation		

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

WAIKATO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
3	South of Hamillton Safety Improvements	Safety and Personal Security	0.1			
1	Piarere Junction Safety Improvements	Safety and Personal Security	0.1			
1	Hillcrest & Morrinsville Rd Intersection	Economic Development	0.1			
39	Kiwi Rd Realignment	Safety and Personal Security	0.1			
27	Tahuna Rd Roundabout	Safety and Personal Security	3.3			
3	Waitomo Rd / SH3 Intersection Safety Improvement	Safety and Personal Security	0.1			
1	Matarawa Bridge Widening	Safety and Personal Security	0.1			
31	Owaikura Rd North Realignment	Safety and Personal Security	1.1			
1	Tregoweth Lane Intersection	Access and Mobility	0.2			
1	Ohaupo / Kahikatea Intersection	Economic Development	3.0			
1	Greenwood / Killarney Intersection ®	Safety and Personal Security	3.3			
2	Waimata Realignment	Safety and Personal Security	0.1			
26	SH26/27 Intersection Improvement ©	Safety and Personal Security	3.5			
3	Awakino North Realignment ®	Access and Mobility	2.0			
1	Gallagher Rd Intersection ®	Access and Mobility	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

Projects in investigation or design may not necessarily proceed to construction.

WAIKATO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Passing Lanes		**Total Phase Cost**			
2	Campbell Road Nth Bd PL Extension	Safety and Personal Security	0.1			
25A	One Tree West PL Extension	Safety and Personal Security	0.7			
1	Rangipo Nth Bd PL	Safety and Personal Security	0.9			
1	James Farm South PL	Safety and Personal Security	0.7			
1	Tutukau Road Nth Bd PL	Safety and Personal Security	0.1			
25A	4th Branch SVB	Safety and Personal Security	0.1			
25A	Piranui Saddle Slow Vehicle Bay	Safety and Personal Security	0.5			
25A	Frenchmans Gap SVB	Safety and Personal Security	0.1			
1	Lichfield Sth PL	Safety and Personal Security	0.8			
1	Hatu Patu PL	Safety and Personal Security	0.6			
3	Meads Hill Nth Bd PL ®	Safety and Personal Security	0.1			
	Stock Effluent Disposal Facilities					
1	Putaruru SEDF	Environmental Sustainability	0.3			
3	Te Kuiti SEDF	Environmental Sustainability	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

WAIKATO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

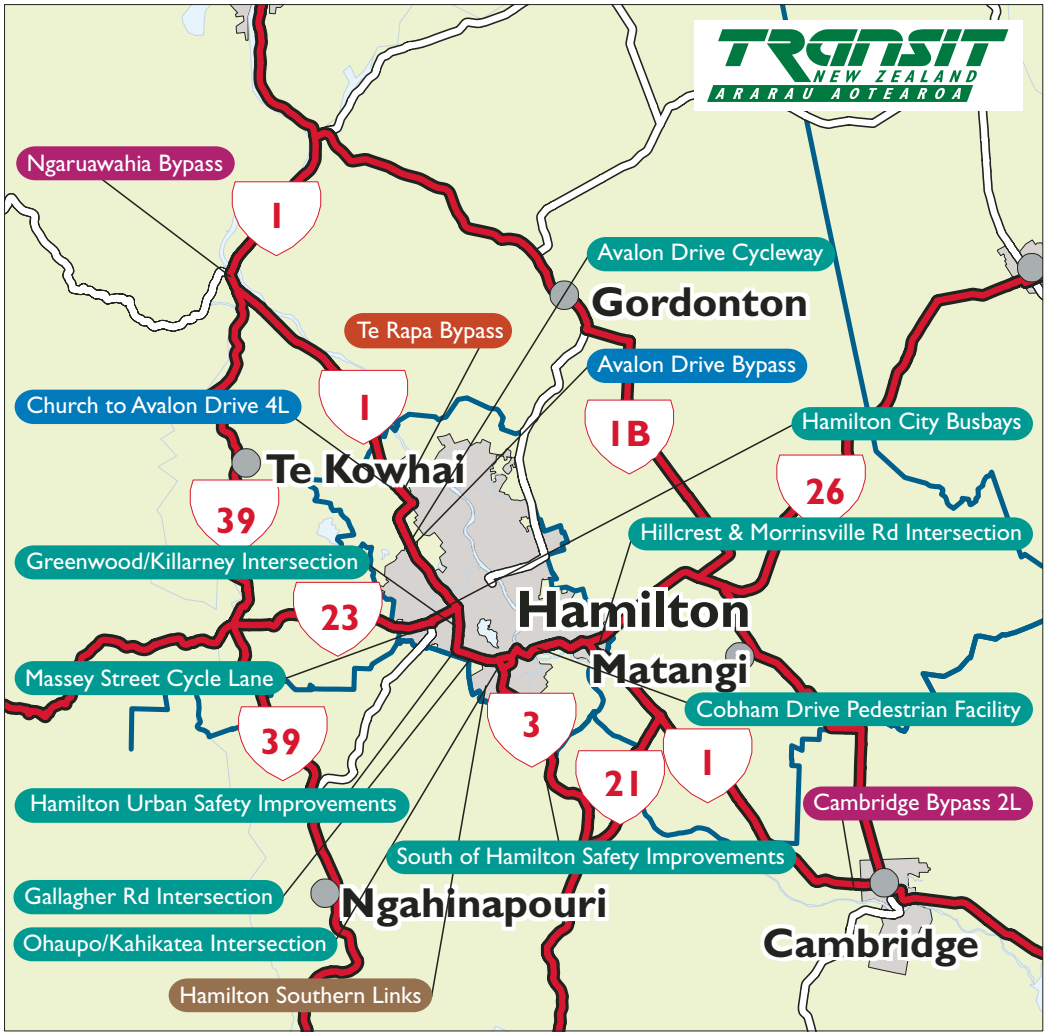
SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Walking & Cycling					
1	Avalon Drive Cycleway	Public Health	$			
23	Massey Street Cycle Lane	Public Health	$			
3	Mangapiko Bridge Footpath Widening	Public Health	$			
3	Te Awamutu Pedestrian Facilities	Public Health	$			
3	Te Awamutu to Kihikihi Footpath Link	Public Health	$			
1	Tongariro Bridge Walk / Cycle Retrofit	Public Health	$			
1	Cobham Drive Pedestrian Facility	Public Health	$			
	Passenger Transport		**Total Phase Cost**			
	Hamilton City Busbays	Access and Mobility	0.4			
	Strategic Studies					
	Waikato Transportation Model					
	SH2/29 Auckland to Tauranga					
	SH1 Kahikatea Dr Hamilton					
	Waikato Passing Opportunities Plan					
	Lake Taupo Stormwater Runoff Environmental Scoping Study					
	Hamilton State Highway Walking and Cycling Strategy					

Projects in investigation or design may not necessarily proceed to construction.

Fig WK Inset

WAIKATO REGION – Inset Map

State Highway Network at 01 July 2006



KEY DELIVERABLES 5-YEAR FUNDING PACKAGE (2006/07 TO 2010/11)		INDICATIVE PROJECTS
Large Projects	Small / Medium Projects	Forecast
BUILT AND OPENED		
SUBSTANTIAL CONSTRUCTION		
PREPARED FOR CONSTRUCTION		
PREPARED FOR DESIGN		

KEY TRANSPORT ISSUES

In meeting the objectives of the NZTS and LTMA, the key regional transport issues for the Bay of Plenty Region include:

- Road safety: particularly safe interaction of heavy freight traffic with general traffic, and tourist traffic
- Congestion: rapid population and development growth in the Bay of Plenty, particularly in the western Bay of Plenty sub-region in and around Tauranga, is causing significant congestion and safety problems
- Forestry traffic: over the next five to ten years, forestry harvesting is expected to increase from 10 to 11 million tonnes a year from the Central Plateau forests, and much of the product will be exported through the Port of Tauranga
- Tourist traffic: particularly around Rotorua and the Urewera National Park
- Route security: interruption of the state highway network because of flooding and slips, particularly in the eastern Bay of Plenty between the East Cape (Gisborne), Opotiki District and Whakatane District, has a significant economic impact on the forestry and dairy industries, as well as on local communities
- Spillages from stock trucks.

How we plan to address these key issues

The Tauranga Central Corridor is one of the most congested corridors in the state highway network and substantial improvements are planned.

The Tauranga Eastern Corridor is also very congested and will be put under further pressure by the substantial growth planned for Papamoa. Transit is working with its Smart Transport partners (Tauranga City Council, Western Bay of Plenty and Environment Bay of Plenty) to develop the Tauranga Eastern Corridor in a manner that integrates the proposed land use with transport systems to achieve a sustainable balance.

Progress will be made towards determining strategies for the remaining Strategic Corridors in the Bay of Plenty. The strategic study planned for the Tauranga Northern Corridor will take into account the review of the long-term function of the highway and design work for an appropriate Tauranga Northern arterial will be undertaken.

Several small projects and other activities under maintenance and operations are targeted at improving route security in the eastern Bay of Plenty, particularly in Matata where Transit is working closely with the Whakatane District Council, Environment Bay of Plenty and ONTRACK on a package of activities following the recent severe flooding.

Congestion and Strategic Corridor Improvements

The Hewlett's Flyover project was completed in 2005/06. Transit is now progressing the Harbour Link Project to four-lane Hewletts Road, duplicate the existing Harbour Bridge and to construct a four lane flyover from the Harbour Bridge to Takitimu Drive. The objectives are to increase road capacity, provide bus lanes where possible to encourage better utilisation of public transport, and provide walking and cycling facilities that will encourage people to use these modes of transport.

A range of travel demand management initiatives will be identified and implemented on the SH2, Turret Road corridor in partnership with Tauranga City Council to complement a proposed signalisation of the Welcome Bay/Mangatapu roundabouts.

The design of the Tauranga Eastern Motorway has commenced. Transit will work with its Smart Transport partners to get a better understanding of the costs and risks of developing a package of transport activities to integrate with and complement the significant proposed land use changes. The Smart Transport partners propose to develop a joint funding package to progress the various construction works.

The investigation work for the Katikati Bypass will consider updating the designation to ensure that it is suitable for a future alternative on SH2 route through Katikati, and that it is compatible with intersection improvements being developed under the small and medium sized projects as stage 1 of the future Bypass.

Investigation work is proposed for the Katikati Bypass, the Omokoroa Intersection and design work is proposed for the Tauranga Northern Arterial.

Transit proposes to continue to work with Tauranga City Council and the developers at Pyes Pa to complete the remaining stages of Pyes Pa Bypass. Stage 1 of the Bypass was completed in 2005/06 by the developer as a contribution necessary to accommodate growth and maintain the functionality of the transport system, including the state highway network.

Safety

There are two safety projects being undertaken: the widening of two bridges on SH36 Rotorua/Tauranga Twin City Corridor. Further work in removing roadside hazards will continue.

If the Bay of Plenty region agrees to the utilisation of their $R funding by Transit a number of additional small projects could be progressed, including further bridge and seal widening, intersection improvements and a bridge replacement at Waitahanui on SH2 if land purchase can be resolved.

Route Security

Replacement of the Reids Canal Bridge and flood protection improvements at the Awaiti Stream Bridge on SH2 near Matata are planned as part of an integrated package of flood protection works.

Passing Opportunities

Transit will construct passing lanes north of Katikati on SH2 and another on SH5 near Rotorua if the region agrees to progressing the project utilising $R funding. A passing lane is also proposed for SH33.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities, a new facility will be constructed on SH29 at McLarens Road to compliment the recently completed facility at Opotiki.

Walking and Cycling

Seven walking and cycling projects are proposed in greater Tauranga and Rotorua.

Strategic Studies

Transit proposes to undertake a number of strategic studies to improve our long-term planning and assist good decision-making, including the Rotorua Central, Eastern BOP Route Security and a strategic study of SH29.

The Rotorua strategic study will consider in particular the form and function of the proposed Rotorua Eastern Arterial and undertake work to better understand its cost and risk.

Maintenance and Operations

Maintenance and operations activities make up a key part of the forecast expenditure in the Bay of Plenty region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake 80km of resurfacing, including 9km with low noise surfacing
- Strengthen 18km of highway
- Improve route security in the eastern Bay of Plenty to safeguard the state highway from flooding and land instability
- Target noise reduction works for specific problem areas
- Improve traffic and travel demand management by upgrading signals and dynamic signage to provide real time information for road users in Tauranga and Rotorua
- Implement plant pest strategies and use special plant pest eradication programmes to target hotspots
- Carry out planting to reduce future maintenance on steep slopes or batters next to highways
- Continue to implement and maintain special safety programmes in areas with poor road safety records, including identified “black routes”.

BAY OF PLENTY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
2A	Harbour Link	Economic Development	217.9			
29	Hewletts Flyover	Economic Development	2.1			
	Tauranga Central Corridor TDM	Economic Development	$			
2	Tauranga Eastern Motorway ® or © §	Access and Mobility	$$$$			
36	Pyes Pa Bypass ® §	Access and Mobility	$$			
2	Katikati Bypass ® §	Access and Mobility	$$$			
2	Omokoroa Roundabout ® §	Access and Mobility	$			
2	Tauranga Northern Arterial ©	Access and Mobility	$$$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
5	Gasline Curves Realignment	Safety and Personal Security	0.1			
2	Katikati to Bethlehem Safety Improvement	Safety and Personal Security	0.1			
2	Paengaroa Weighstation	Safety and Personal Security	0.4			
29	Soldiers Road Realignment and Intersection	Safety and Personal Security	0.1			
2	Matata Underpass Realignment	Safety and Personal Security	0.6			

§ in conjuction with third party contributions outside NLTP funding

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

Projects in investigation or design may not necessarily proceed to construction.

BAY OF PLENTY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
2	Reids Canal Bridge Replacement	Environmental Sustainability	1.2			
2	Awaiti Stream Bridge Flood Protection	Environmental Sustainability	0.1			
36	Hamurana Rd / Tauranga Direct Rd Intersection	Safety and Personal Security	0.1			
5	Ngongotaha RAB Tidal Improvement (Lights)	Access and Mobility	0.1			
36	Mangarewa Stream North Bridge Widening	Safety and Personal Security	1.8			
29	Welcome Bay / Maungatapu Roundabouts	Economic Development	0.2			
36	Mangapouri Bridge Widening	Safety and Personal Security	0.1			
2	Wharawhara Road Roundabout	Economic Development	0.1			
2	Waitahanui Bridge Replacement ®	Safety and Personal Security	3.9			
36	Waiteti Rd Intersection ®	Safety and Personal Security	0.1			
5	Fairy Springs 4L Stage 2 ®	Safety and Personal Security	0.2			
36	Mangarewa Stream South Bridge Widening ®	Safety and Personal Security	1.9			
2	Marshall Road Intersection ®	Economic Development	0.1			
	Passing Lanes					
5	Maraeroa PL ®	Safety and Personal Security	0.1			
2	Kauri Point PL	Safety and Personal Security	0.1			
33	Banksia Rd PL	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

BAY OF PLENTY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Stock Effluent Disposal Facilities		**Total Phase Cost**			
2	Opotiki SEDF	Environmental Sustainability	0.4			
29	McLarens SEDF	Environmental Sustainability	0.6			
	Walking & Cycling					
2	Bethlehem to Wairoa Pedestrian and Cycle Facilities	Public Health	$			
2	Route J Pedestrian/Cycle Underpass	Public Health	$			
29	Poike Rd Pedestrian and Cycle Facility	Public Health	$			
2	Te Maunga Pedestrian Strategy Link	Public Health	$			
2	Wairoa Bridge Pedestrian/Cycle Safety Improvement	Public Health	$			
33	Mourea Bridge Pedestrian Cycleway ®	Public Health	$			
	Strategic Studies					
	Whakatane Transportation Strategy					
	Tauranga Northern and South-western Corridors					
	Rotorua Central, Eastern Lakes, and Southern Corridors					
	Eastern Bay of Plenty Strategic Study					
	SH29 Strategic Study					

Projects in investigation or design may not necessarily proceed to construction.

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

KEY TRANSPORT ISSUES

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

- Road safety
- Forestry traffic is expected to remain at current levels of around 800,000 in 2006 and rise to 2.5 to 3.0 million tonnes a year by 2009/10. Harvesting rates are predicted to stay at this level for the next 20 years, and will require a good transportation system
- Route security and efficiency on SH2, particularly to the north via Waioeka Gorge and to the south via Matahorua Gorge, and on SH35 along the Waiapu River
- Tourist traffic.

How we plan to address these key issues

SH2 in the Gisborne region runs through a variety of terrain, including plains, coastal sections and river gorges in mountainous country. Terrain around SH35 is also varied, comprising a narrow coastal margin of rocky bays and headlands on the north coast and a mixture of this and largely pastoral hill country on the east coast.

Land use around SH2 is primarily pastoral farming, horticulture, conservation, recreation activity and exotic forestry. The principal land use around SH35 is dairy and pastoral farming, with small commercial, residential, tourism and fishing activities interspersed along the highway.

The two main shipping ports for the region are in Napier and Gisborne and the linkage between the two ports on SH2 is strategically very important. Although a smaller port, Gisborne has a throughput of 500,000 tonnes a year, consisting primarily of logs for export.

A small rural realignment project is planned for SH2, and on SH35 seal widening and a number of slow vehicle bays are planned.

Road Safety – Secure and Efficient Transport Corridors

Transit plans to continue improving the safety and efficiency of state highways. A number of large, medium and smaller activities have been proposed, including a programme of seal widening on SH35 that will be staged and consist largely of projects north and south of Tolaga Bay. Further work on the management or removal of roadside hazards will continue.

Stock Effluent

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities, Transit intends to review the North Island stock effluent strategy to identify an appropriate site for the Gisborne region.

Passing Opportunities

The alignment of SH35 north of Gisborne restricts opportunities for passing, leading to driver frustration and accidents. Two slow vehicle bay projects have been identified for progress on SH35 north of Gisborne. The Passing and Overtaking Strategy study on SH2 between Gisborne and Napier has now been completed and identifies further improvements that can be made on this route. Work will be undertaken to implement a package of slow vehicle bay extensions and passing opportunity improvements.

Walking and Cycling

The Gisborne Walking and cycling strategy has been reviewed by Transit New Zealand. Two walking and cycling projects, Awapuni to McDonald Road and the Gisborne Wainui Cycleway, have been proposed for progress.

Strategic Studies

We are proposing to undertake strategic studies for each of the state highway corridors in the Gisborne region, to improve our long-term planning and assist good decision-making.

Maintenance and Operations

Maintenance activities make up a large proportion of the forecast expenditure in the Gisborne region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 60km and reconstruct 16km of highway
- Undertake the first stage of a programme to improve the stability of subsidence sites on SH35 more quickly and reliably
- Widen the carriageway to target seal widths as part of maintenance activities, when appropriate and affordable
- Provide a more forgiving roadside environment to reduce the severity of accidents
- Continue to focus on low skid resistance sites to maintain the standard of surface friction performance
- Improve safety and prevent road blockages on sections of state highway with a high incidence of rock falls
- Improve our response to ice and snow prone sections on state highways to reduce winter crash rates
- Look for opportunities to reduce roadside noise in urban areas
- Improve roadside drainage facilities
- Continue to improve traffic management at incidents on the network.

GISBORNE State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
35	Tolaga to Gisborne Seal Widening ®	Safety and Personal Security	$$	Investigation	Design	Construction
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
2	Dymock Road Curve	Safety and Personal Security	0.4	Committed Construction		
35	Curve North of Makarika Rd	Safety and Personal Security	0.4	Construction		
35	Kopuaroa No.3 Bridge Replacement ®	Safety and Personal Security	0.1	Design		
	Passing Lanes					
35	Slow Vehicle Bays Stage 1	Safety and Personal Security	0.1	Design		
35	Panikau Hill Slow Vehicle Bay ®	Safety and Personal Security	0.1	Design		
	Stock Effluent Disposal Facility					
35	Gisborne SEDF	Environmental Sustainability	0.1	Investigation		
	Walking & Cycling					
35	Awapuni to McDonald Cycleway ®	Public Health	$			
35	Gisborne – Wainui Cycleway ®	Public Health	$			

Projects in investigation or design may not necessarily proceed to construction.

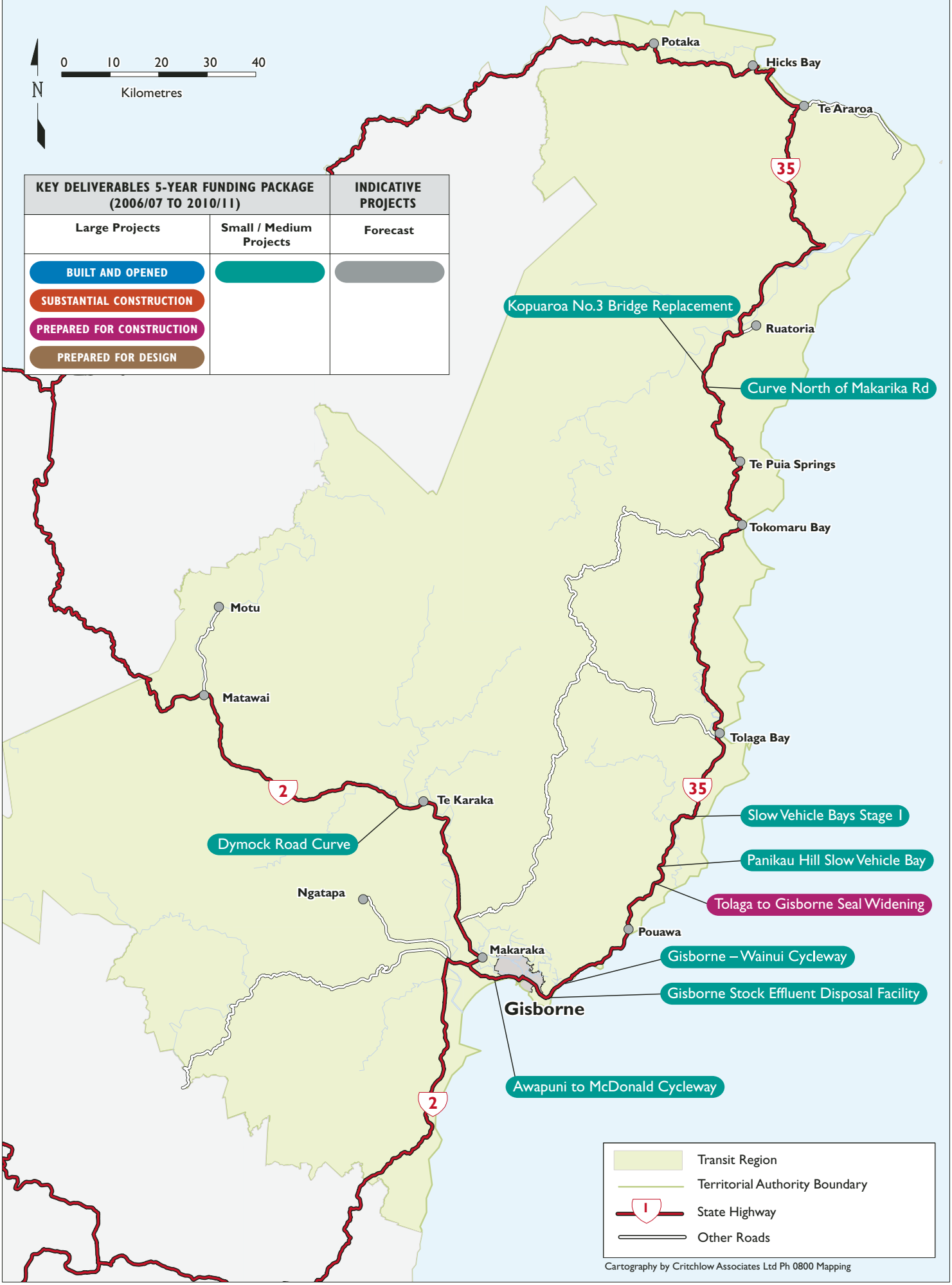
Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Fig G

GISBORNE REGION

State Highway Network at 01 July 2006



Cartography by Critchlow Associates Ltd Ph 0800 Mapping

KEY TRANSPORT ISSUES

In meeting the objectives of the NZTS and LTMA the key regional transport issues for the Hawke's Bay include:

- Road safety
- Forestry traffic has been growing but is likely to level off at around 1.6 million tonnes per year, most of which will be exported through the Port of Napier
- Stone fruit, process cropping, food and wood processing and viticulture industries are growing leading to increasing demands on the road network
- Access to the Port of Napier
- Route security and efficiency on SH2 to the north through the Matahorua Gorge
- Route efficiency to the south and around the Heretaunga Plains
- Tourist traffic, particularly in Urewera National Park
- Environmental impacts of major transport routes through urban and suburban areas.

How we plan to address these key issues

The terrain in the Hawke's Bay is variable, with SH2 in the south generally flat from Napier, becoming flat to rolling around Waipukurau, then rising gently up to the Takapau Plains. A number of passing lanes have been constructed already to improve efficiency, with four others planned and three more proposed.

SH2 north is aligned parallel to the east coast and is generally characterised as a moderate speed route traversing flat, rolling and mountainous terrain up to a maximum elevation of 500 metres above sea level. A passing lane strategy from Wairoa to Napier is currently underway to investigate passing opportunities to reduce delays. The strategy will provide a mechanism to identify and prioritise the most appropriate passing lanes for this section of SH2.

SH5, from the SH2 junction to Waipunga (6km north of Tarawera), runs through hilly to rolling country with several steep grades. This section of highway is known to have some areas of instability, which become evident after prolonged wet weather. Transit will continue to seek engineering solutions to stabilise such areas. Logging traffic to the ports of Napier and Tauranga and increasing horticulture and viticulture add to the growing traffic demand on this highway. The route also carries all the traffic from the Heretaunga Plains area to Taupo, including the majority of northbound heavy haulage imports and exports out of Hawke's Bay, because there is no rail connection, other than at Palmerston North. Various realignments and passing lanes are planned to improve safety and efficiency.

SH38 from Aniwaniwa to Wairoa climbs from sea level at Wairoa to a maximum elevation of 660 metres and provides access for tourists to Te Urewera National Park. Minor safety improvements are planned for this highway.

SH50A comprises a section of the Hawke's Bay Expressway from Links Road through to York Avenue. Investigations initiated in 2006/07 to extend the expressway further south are being processed. Transit plans to undertake the design in 2007/08. This will ultimately reduce delays and crashes at the Maraekakaho Road/York Road intersection.

Prebensen Drive / Hyderabad Road Interchange in Napier is a new large project which will assist economic development by providing an efficient route to the Port of Napier. The addition of this project results in no increase to the National Land Transport Programme. The Hawke's Bay Regional Land Transport Committee has proposed that the project is funded from regional funding.

Road Safety – Secure and Efficient Transport Corridors

Transit will continue improving the safety and efficiency of state highways. A number of large and small to medium activities have been proposed. These include realignments, intersection improvements and seal widening. Further work on the management or removal of roadside hazards will continue.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. To provide passing opportunities on SH2 in Hawke's Bay a significant number of projects have been identified for progress in the next three years. These include the Gisborne to Napier Passing Bays north of Napier and nine passing lanes south of Hastings.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities a new stock effluent disposal facility is to be constructed on SH5 and is still under investigation. Another site on SH2 in the Wairoa District has been included in the forecast for investigation in 2007/2008.

Walking and Cycling

The cycling strategies for Napier City Council, Hastings, Wairoa, Central Hawke's Bay District Councils have now all been reviewed by Transit New Zealand. Six projects in Napier, Hastings, Waipawa and Waipukurau are proposed to commence in the next three years.

Strategic Studies

We are proposing to undertake a strategic study for the Hawke's Bay region, to improve our long-term planning and assist good decision-making.

Maintenance and Operations

Maintenance activities make up a large proportion of the forecast expenditure in the Hawke's Bay region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 77km and reconstruct 13km of highway
- Carry out improvements to the surface of the unsealed section of SH38
- Widen the carriageway to target seal widths as part of maintenance activities when appropriate and affordable
- Provide a more forgiving roadside environment to reduce the severity of accidents
- Continue to focus on low skid resistance sites to maintain the standard of surface friction performance already achieved
- Improve safety and prevent road blockages on sections of the state highway with a high incidence of rock falls
- Improve the response to ice and snow prone sections on state highways to reduce winter crash rates
- Look for opportunities to reduce roadside noise in urban areas.

HAWKE'S BAY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
50	Meeanee Rd Interchange	Safety and Personal Security	1.2			
50A	Hawke's Bay Expressway Southern Extension ®	Access and Mobility	$			
2	Waipukurau Overbridge Realignment ®	Safety and Personal Security	$$			
5	Tarawera Hill Realignment and Sth Bd PL (N/R)	Safety and Personal Security	$$			
2	Matahorua Gorge Realignment ®	Access and Mobility	$$			
2	Prebensen Drive/Hyderabad Rd Interchange ®	Access and Mobility	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
2	Otane Intersection Curve Improvements	Safety and Personal Security	1.3			
2	Kiwi Valley Road Realignment	Safety and Personal Security	0.7			
2	Waitangi Washout Bridge Replacement	Safety and Personal Security	0.1			
2	Pilchers Rd Intersection	Safety and Personal Security	0.1			
5	Dillons Hill Realignment	Safety and Personal Security	3.5			
2	Kennedy Rd Intersection Improvements	Safety and Personal Security	0.1			
2	North of Tunanui Rd Realignment	Safety and Personal Security	0.1			
2	Takapau Plains Seal Widening part ®	Safety and Personal Security	0.1			
2	Tahaenui Bridge Replacement and Realignment	Safety and Personal Security	0.1			
2	Whakaki Rd Curve Improvements	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

(N/R) denotes national funding, however Land Transport NZ has indicated possible regionally distributed funding

Projects in investigation or design may not necessarily proceed to construction.

HAWKE'S BAY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
2	South of Waikoau Rd Realignment	Safety and Personal Security	0.1	Design		
2	College Rd to Silverstream Realignment & PL	Safety and Personal Security	0.1	Design		
	Passing Lanes					
2	Corkscrew Gully Nth Bd PL	Safety and Personal Security	0.1	Design		
2	Te Mahanga Sth Bd PL	Safety and Personal Security	0.5	Construction		
2	Otane Cemetery PL	Safety and Personal Security	0.5	Construction		
2	Opapa Nth Bd PL	Safety and Personal Security	0.1	Design		
2	Gisborne – Napier Passing Bays	Safety and Personal Security	0.1	Design		
2	Poukawa Swamp Nth Bd PL	Safety and Personal Security	0.1	Investigation		
2	Te Mahanga Nth Bd PL	Safety and Personal Security	0.5	Construction		
2	SH2 South of SH50 PL	Safety and Personal Security	0.1	Investigation		
2	Poukawa Swamp Sth Bd PL	Safety and Personal Security	0.1	Investigation		
2	Drumpeel Sth Bd PL	Safety and Personal Security	0.1	Investigation		

Projects in investigation or design may not necessarily proceed to construction.

HAWKE'S BAY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Stock Effluent Disposal Facilities		**Total Phase Cost**			
5	Bay View SEDF	Environmental Sustainability	0.2			
2	Wairoa SEDF	Environmental Sustainability	0.1			
	Walking & Cycling					
2	Bay View / Breakwater Cycleway	Public Health	0.3			
2	Waipawa to Waipukurau Cycleway	Public Health	0.3			
2	Waitangi Stream Bridge Cycleway	Public Health	$			
2	Waipukurau Cycle Lane Network	Public Health	$			
2	Karamu Stream Bridge Cycleway	Public Health	$			
	Strategic Studies					
	Region 5 Network Management Plan					

Projects in investigation or design may not necessarily proceed to construction.

KEY TRANSPORT ISSUES

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

- Road safety
- Residential and industrial development to the north of New Plymouth
- Route security and efficiency to the north via the Awakino Gorge and to the south via Hawera
- Tourist traffic, including development of the "Forgotten World Highway".

How we plan to address these key issues

The state highway network in Taranaki has been improved significantly in recent years and is now generally of a high standard. The strategic significance of reliable state highway access to Taranaki is an important feature in planning for Transit's maintenance and preventive works programmes. While the emphasis for Transit in Taranaki is on maintaining the existing state highway network, there are a number of activities to improve road safety as well as route security and efficiency in the Taranaki region. A further priority is managing the connections between state highways and local roads as well as access to state highways from adjacent land to support the medium to long distance travel function of key arterial roads.

The Normanby Road Overbridge south of Hawera is a recognised regional safety issue and will be realigned. Similarly the Rugby Road Underpass, south of Inglewood, will provide a safer and more reliable route, particularly for heavy vehicles.

The Bell Block Bypass, North of New Plymouth, is a strategic route improvement between Paraite Road and Egmont Road, bypassing a section of existing highway to reduce congestion and improve safety. It is now under construction. The Bell Block Bypass leads into the proposed Mangaone Hill Four-laning project and is part of the current construction work.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of activities to improve the safety and efficiency of sections of SH3 for progress in the next five years, including road realignments and intersection improvements. Further work on the management or removal of roadside hazards will continue.

The Taranaki and Waikato regions have agreed to share the cost of the construction on improvements in the Awakino Gorge, including the Awakino North Realignment and the Awakino Tunnel Widening, using their SR funding, to ensure that the future reliability, security and safety of this strategic route between the two regions is retained.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. A package of passing lanes has been identified on SH3 to progress over the next three years. To assess the requirement for passing opportunities in the Taranaki region a study has been undertaken, on SH3 between Hawera and Wanganui.

Walking and Cycling

Investigation of the Devon Intermediate Pedestrian Facility on SH45 in Western New Plymouth is complete and construction will be progressed in the next two years. In addition the Bell Block to Waiwhakaiho River cycleway is being looked at as a possible joint activity with the Council.

Strategic Studies

The New Plymouth Strategic Study presently underway, will identify and provide invaluable information regarding improvements and the management and protection of strategic networks and important local roads in New Plymouth.

Maintenance and Operations

Maintenance and operations activities make up a large proportion of the forecast expenditure in the Taranaki region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 97 kilometres of the network
- Carry out 7 kilometres of road pavement reconstruction
- Improve the availability of road condition information at critical locations on the network.

TARANAKI State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
3	Bell Block Bypass including Mangaone Hill 4L	Access and Mobility	20.7			
3	Rugby Road Underpass ®	Access and Mobility	$$			
3	Normanby Overbridge Realignment ®	Access and Mobility	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
3	Tangahoe Bridge Widening ®	Safety and Personal Security	1.6			
3	Finnerty Rd Right Turn Bay	Safety and Personal Security	0.1			
	Passing Lanes					
3	Hawera to Wanganui Passing Lanes	Safety and Personal Security	0.3			
	Walking & Cycling					
45	Devon Intermediate Pedestrian Facility	Public Health	$			
3	Bell Block to Waiwhakaiho River Cycleway	Public Health	$			

Strategic Studies

SH3 Awakino Gorge

Taranaki Passing Opportunities

New Plymouth Urban (joint study with New Plymouth District Council)

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

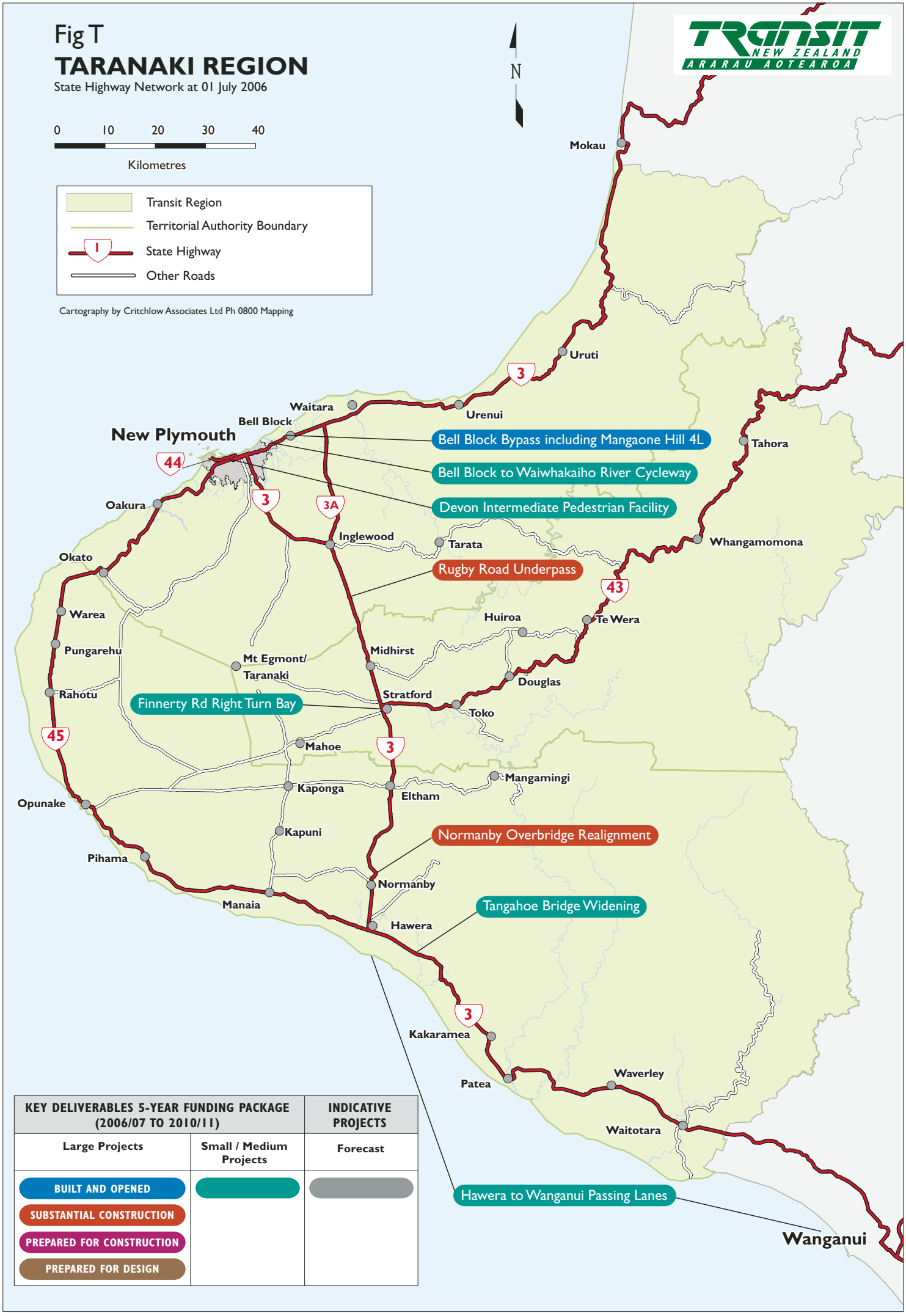


Fig T
TARANAKI REGION
State Highway Network at 01 July 2006
N
0 10 20 30 40
Kilometres
Transit Region
Territorial Authority Boundary
State Highway
Other Roads
Cartography by Critchlow Associates Ltd Ph 0800 Mapping
TRANSIT NEW ZEALAND ARARAU AOTEAROA
Mokau
Uruti
Urenui
Waitara
Bell Block
New Plymouth
Bell Block Bypass including Mangaone Hill 4L
Bell Block to Waiwhakaiho River Cycleway
Devon Intermediate Pedestrian Facility
Tahora
Whangamomona
Oakura
Inglewood
Tarata
Okato
Rugby Road Underpass
Warea
Huiroa
Te Wera
Pungarehu
Mt Egmont/ Taranaki
Midhirst
Douglas
Rahotu
Finnerty Rd Right Turn Bay
Stratford
Toko
Mahoe
Mangamingi
Kaponga
Eltham
Opunake
Kapuni
Normanby Overbridge Realignment
Pihama
Normanby
Manaia
Tangahoe Bridge Widening
Hawera
Kakaramea
Patea
Waverley
Waitotara
Hawera to Wanganui Passing Lanes
Wanganui
44
3
3A
43
45
KEY DELIVERABLES 5-YEAR FUNDING PACKAGE (2006/07 TO 2010/11)
INDICATIVE PROJECTS
Large Projects
Small / Medium Projects
Forecast
BUILT AND OPENED
SUBSTANTIAL CONSTRUCTION
PREPARED FOR CONSTRUCTION
PREPARED FOR DESIGN

KEY TRANSPORT ISSUES

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

- Road safety
- Safety and capacity issues south of Levin
- Industrial and commercial development around Palmerston North Airport, and the proposed closure of Milson Line due to airport extensions
- Residential development to the east of Palmerston North across the Manawatu River
- Route security and efficiency to the east, through the Manawatu Gorge
- Additional river crossings to provide access from Palmerston North
- The need to provide for a heavy commercial vehicle route
- Assist in the maintenance of a Lahar Warning system on Mt Ruapehu.

How we plan to address these key issues

While there is a significant emphasis for Transit in the Manawatu/Wanganui region on maintaining the existing state highway network, there are a number of prioritised activities to improve road safety as well as route security and efficiency in the region. A further priority is managing the connections between state highways and local roads, as well as access to state highways from adjacent land, to support the medium to long distance travel function of key arterial roads.

A safety improvement is proposed for SH1: the Ohingaiti–Makohine Realignment south of Taihape, and on SH2: the Papatawa Realignment near Dannevirke.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of small and medium sized activities to improve the safety and efficiency of sections of the state highway including intersections, to progress in the next three years. Activities include intersection improvements, realignments and seal widening. Implementation of works identified from previous crash reduction studies will be undertaken in the Manawatu/Rangitikei District and traffic signals are to installed on the Grey Street/Princess Street intersection and on Rangitikei Street at Tremain Ave and J F Kennedy Drive for capacity and safety. Further work on the management or removal of roadside hazards will continue.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. In Manawatu/Wanganui a number of projects have been identified to provide passing opportunities for progression in the next three years, consisting of five passing lanes or passing lane extensions on SH1, one passing lane extension on SH2 and three passing lanes on SH3.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities Transit propose the construction of facilities on SH2 near Dannevirke, on SH4 near National Park and on SH1 near Taihape.

Walking and Cycling

The Bulls Bridge Cycleway Improvement will be progressed during the next three years.

Strategic Studies

We are proposing to undertake a number of strategic studies for the Manawatu/Wanganui region, including studies of Desert Road Summit to Levin and south of Levin to improve our long-term planning and assist good decision-making. The Hiwi Hills to Wanganui Corridor Management Plan will also be reviewed.

Maintenance and Operations

Maintenance and operations activities make up a large proportion of the forecast expenditure in the Manawatu/Wanganui region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 70 kilometres of highway
- Carry out 3 kilometres of road pavement reconstruction
- Continue to provide high-quality skid-resistant road surfaces
- Widen the carriageway to target seal widths as part of maintenance activities, when appropriate and affordable
- Enhance Transit's management of slips and unstable areas to reduce road user risks and maintain route security.

MANAWATU/WANGANUI State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design
Committed Construction	
Investigation	Design
Construction	

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
1	Ohingaiti – Makohine Realignment ®	Safety and Personal Security	$$			
2	Papatawa Realignment ®	Safety and Personal Security	$$			
1	Foxton South Curves ®	Safety and Personal Security	$			
2	Manawatu Hill Realignment ®	Safety and Personal Security	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
3	Stewart Rd Intersection and Seal Widening	Safety and Personal Security	1.2			
3	Awahuri Intersection	Safety and Personal Security	0.1			
54	Newbury Intersection Right Turn Bay	Safety and Personal Security	0.1			
1	Makomako Intersection (Levin South) ®	Safety and Personal Security	0.1			
3	Grey Princess Signals	Economic Development	0.2			
4	Manunui Intersection	Safety and Personal Security	0.1			
	CRS Manawatu / Rangitikei	Safety and Personal Security	0.1			
4	North of Upokongaro Realignment	Safety and Personal Security	0.1			
57	Makerua Intersection SH56/57	Safety and Personal Security	2.3			
4	Lismore Corner Realignment	Safety and Personal Security	0.1			
4	Hapokopoko Stream North Realignment	Safety and Personal Security	0.1			
1	Muhunoa Rd Intersection	Safety and Personal Security	0.4			
3	Rangitikei Line JFKennedy Drive Intersection	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

MANAWATU/WANGANUI State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
3	Hansen Line and Taonui Nth Curves	Safety and Personal Security	0.1			
56	Highway 56 Opiki T Junction ®	Safety and Personal Security	1.1			
3	Rangitikei Line / Tremaine Ave Intersection Improvement ®	Safety and Personal Security	0.1			
	Passing Lanes					
1	Vinegar Hill PL Extension	Safety and Personal Security	0.6			
1	Desert Road Nth Bd PL	Safety and Personal Security	0.1			
1	Desert Road Sth Bd PL	Safety and Personal Security	0.1			
3	Mt Stewart Nth Bd PL	Safety and Personal Security	0.1			
2	Otamaraho Curve PL Extension	Safety and Personal Security	0.1			
3	Duddings Lake Nth Bd PL ®	Safety and Personal Security	1.4			
	Stock Effluent Disposal Facilities					
	Dannevirke SEDF	Environmental Sustainability	0.1			
	National Park SEDF	Environmental Sustainability	0.1			
	Taihape SEDF	Environmental Sustainability	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

MANAWATU/WANGANUI State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Walking & Cycling					
1	Bulls Bridge Cycleway	Public Health	$			
	Strategic Studies					
	Palmerston North Strategy Study					
	SH3 Mount Stewart / Manawatu Gorge					
	Levin South					
	Desert Summit – Levin Strategic Study					

KEY TRANSPORT ISSUES

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

- Road safety
- Severe congestion, particularly at peak times, on the main routes into and out of Wellington City. Key "hot points" include Paekakariki to Pukerua Bay, SH1 Ngauranga interchange, SH2 Dowse to Ngauranga, the areas around the Terrace and Mt Victoria Tunnels, as well as the Basin Reserve
- Route security and efficiency to the north of Wellington, both on SH1 and SH2
- Access to the Airport and Wellington's regional hospital in Newtown
- The need for stronger connections between Lower Hutt and Porirua.

How we plan to address these key issues

Improvements are needed to reduce congestion and address safety issues along SH1 between Ngauranga and Peka Peka, just north of Waikanae.

Following extensive public consultation, Greater Wellington Regional Council has adopted a Western Corridor Plan for inclusion in the draft Regional Land Transport Strategy. The plan includes travel demand measures, improvements to "park and ride" and bus-rail connections and plans to increase passenger rail transport.

The Western Corridor plan can be geographically split into two areas, being to the north and south of MacKays Crossing. In the north, the Kapiti Western Link Road is now a Kapiti Coast District Council project. It consists of a major arterial parallel to SH1 between Peka Peka Road north of Waikanae and Poplar Avenue at Raumati. This will relieve congestion on both the state highway and local roads and provide a second crossing of the Waikanae River.

Transit continues to work with Kapiti Coast District Council on the final form of the Kapiti Western Link Road, including the need for grade separation of the connections to SH1.

The construction of Transmission Gully Motorway has been included in the corridor plan, but is subject to a funding plan being finalised by the region. Funding for investigation and preliminary design has been included in the 10-year forecast. Preliminary investigation work has commenced. Full development will be contingent on a funding plan being approved.

Although investigation into a new road linking Grenada on SH1 with the Hutt Valley is included in the Western Corridor Plan, it is not included in the current 10-year State Highway Forecast because the status of the road is yet to be determined. Transit will be undertaking a joint study of the Grenada to Gracefield link with Wellington City Council and Hutt City Council to determine the scope of the project.

The Hutt Corridor is often congested, particularly south of Upper Hutt. Construction funding has been approved for the Dowse to Petone upgrade and construction will commence in mid-2007. The upgrade includes an overbridge at the Korokoro intersection (connecting the Western Hills with Hutt Road) and an interchange at the Dowse Drive intersection (connecting Dowse Drive and Hutt Road via a roundabout raised over the highway, as well as connections to the state highway). These improvements also include altering the Petone "Park and Ride" facility and minor safety improvements to the highway between the existing intersections. Investigation of options to upgrade the Melling intersection is also included in the 10-year forecast.

Design work on the Rimutaka Corner Easing project to straighten some tight curves at 'Muldoon's Corner' is in progress. Construction of this project could be advanced if supported by the consultation on the draft Regional Land Transport Strategy.

Other large projects forecast in the 10-year period include grade separation of the SH2 to SH58 intersection at Manor Park. Previously identified improvements required at the Basin Reserve have been retained in the forecast but are subject to confirmation by the Ngauranga to Airport Study.

Road Safety

The first stage of the Advanced Traffic Management System (ATMS) installed in Ngauranga Gorge has been very effective in smoothing traffic flows and ensuring a faster response to incidents. Transit proposes to investigate the incremental extension of the system to other high traffic volume sections of SH1 from Ngauranga to the Terrace Tunnel and on SH2 from Petone to Ngauranga. In addition, variable message signs are to be located at various sites within the Wellington region to assist with safety by providing information to road users, particularly for more extreme events causing road closures. Further work on the management or removal of roadside hazards will continue.

Secure and Efficient Transport Corridors

A larger Otaki roundabout is proposed at the intersection of SH1 and Rahui and Mill Roads.

Heavy Vehicle Weigh Station

With the completion of the Mana upgrade there is no southbound weighing facility. A replacement is required to ensure that the Police can manage their safety and compliance responsibilities. The preferred site for the weigh facility is at Plimmerton. The weigh station project is forecast to be completed within the next three years.

Passing Lanes

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. In Wellington a number of passing lane projects have been identified for progress in the next three years, subject to $R funding, including on SH2 in the Wairarapa, with north and southbound lanes between Featherston and Greytown and between Masterton and Carterton, on SH58 near Judgeford, and on SH1 between Otaki and Waikanae.

Walking and Cycling

Options for the extension of the SH2 cycleway to the Petone interchange from its current position are currently being investigated. In addition a new project in Paraparaumu is proposed and the new pedestrian facility at Teihana Road is to be completed.

Strategic Studies

A number of strategic studies are proposed for the Wellington region including SH1 in Kapiti, SH58 (as part of the investigation of the Transmission Gully Motorway), the SH2 Hutt Corridor Strategic Study, Stage 2 of the Featherston to Upper Hutt Study, the Grenada to Gracefield Study and the SH2 Wairarapa (land use/transport) Study.

Maintenance and Operations

Maintenance and operations activities make up the majority of the forecast expenditure in the Wellington region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 26km of highway, including 13km of low noise surfacing
- Apply high skid resistant surfacing on approaches to high speed intersections
- Continue to maintain and improve the SH58 Pauatahanui inlet seawall
- Continue with flood mitigation works on SH1 at Paekakariki
- Work with local authorities to optimise traffic operations on both local arterials and state highways, including establishment of a dedicated Traffic Management Centre
- Improve coordination with Police and Emergency Services in the management of incidents that affect the operation of the network
- Continue to work with Civil Defence and Emergency Management to refine emergency response plans in and around Wellington
- Monitor traffic and levels of congestion
- Continue with a programme of improvements to tunnels to meet appropriate safety standards.

WELLINGTON State Highway Plan and Forecast for 2007/8 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
1	Centennial Highway Median Barrier	Safety and Personal Security	2.0			
	Transmission Gully Investigation	Economic Development	3.5			
2	Dowse to Petone Interchange	Economic Development	75.5			
1	Buckle Street	Access and Mobility	$$			
1	Basin Reserve Improvements ©	Economic Development	$$$			
	Transmission Gully	Economic Development	$$$$			
2	Melling Interchange ®	Economic Development	$$$			
2	Rimutaka Corner Easing (Muldoon's) ®	Safety and Personal Security	$$$			
2	SH2/58 Grade Separation ©	Safety and Personal Security	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
1	Centennial Highway Interim Improvements	Safety and Personal Security	0.3			
2	Wairere/Pomare Rd Intersection	Safety and Personal Security	0.5			
1	Plimmerton Weigh Station (Ex Waikanae)	Safety and Personal Security	2.2			
2	Petone to Ngauranga ATMS	Safety and Personal Security	2.0			
1	Ngauranga to Terrace Tunnel ATMS	Safety and Personal Security	2.0			
Var	Wellington Region Variable Message Signs	Safety and Personal Security	2.2			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

© denotes crown funding

Projects in investigation or design may not necessarily proceed to construction.

WELLINGTON State Highway Plan and Forecast for 2007/8 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
1	Paekakariki Improvements	Safety and Personal Security	1.0			
1	Pukerua Bay Improvements	Safety and Personal Security	0.1			
1	Otaki Roundabout	Access and Mobility	0.9			
2	Moonshine Hill Intersection	Safety and Personal Security	2.1			
2	Carterton Intersection – Pembroke Street	Safety and Personal Security	0.2			
2	Carterton Intersection – Park Rd/Belvedere Rd Roundabout	Safety and Personal Security	0.3			
	Passing Lanes					
2	Featherston to Greytown Nth Bd PL	Safety and Personal Security	0.6			
2	Greytown to Featherston Sth Bd PL	Safety and Personal Security	0.7			
1	Otaki to Waikanae Sth Bd PL	Safety and Personal Security	1.4			
2	Carterton to Masterton Nth Bd PL	Safety and Personal Security	0.8			
2	Masterton to Carterton Sth Bd PL	Safety and Personal Security	0.9			
	Walking & Cycling					
1	Teihana Rd Pedestrian Facilities	Public Health	$			
2	Petone – Horokiwi Cycling Facility	Public Health	$			
1	Paraparaumu Rail Overbridge Clip-on Cycle Lane	Public Health	$			

Projects in investigation or design may not necessarily proceed to construction.

WELLINGTON State Highway Plan and Forecast for 2007/8 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Strategic Studies					
	Featherston to Upper Hutt State Highway Plan					
	SH1 Kapiti Strategic Study					
	SH2 Hutt Strategic Study					
	SH1 Ngauranga to Airport					
	SH58 – Safety Improvement					
	Porirua Walking & Cycling					
	Wairarapa Strategic Study					
	Wellington State Highway Strategy					
	SH2 Petone to Hayward Safety Review					
	Wellington Cycle Strategy Audit					
	Grenada to Gracefield Strategic Study					

KEY TRANSPORT ISSUES

In meeting the objectives of the NZTS and LTMA the key regional transport issues for the Nelson/Marlborough/Tasman region include:

- Road safety
- Travel time reliability during peak periods
- Poor air quality in some parts of Nelson
- Traffic growth within and beyond Blenheim, particularly on arterial roads in the Blenheim/Wairau Plains environs and Ferry traffic, a relatively unique issue with "tidal" flows throughout the day
- Route security and efficiency to the east, including the Awatere Bridge, north of Nelson (including the Whangamoa South saddle), and south of Nelson, (including Hope Saddle)
- Forestry traffic: Marlborough is anticipating a significant increase in forestry to around one million tonnes per year, of which two-thirds is expected to be exported through Port Shakespeare at Picton. Nelson and Tasman are similarly expecting significant growth to two million tonnes, much of which will be exported though the Port of Nelson
- Tourist traffic: particularly to Nelson Lakes National Park, Marlborough Sounds, Abel Tasman Park and Kahurangi National Park.

How we plan to address these key issues

While there is a significant emphasis for Transit in Marlborough, Nelson and Tasman on maintaining the existing state highway network, there are a number of activities in the 10-year State Highway Forecast to improve road safety as well as route security and efficiency in the Nelson/Marlborough/Tasman region.

The North Nelson to Brightwater Strategic Study is in progress to develop a long term transport strategy for the Nelson to Brightwater Corridor. Immediate priority improvement projects identified by the study, such as the Tahunanui intersection, the McGlashen Ave intersection, and the Three Brothers Corner intersection, are included in the forecast. Following public consultation on the long-term strategy, projects will be considered in future forecasts.

A further priority is managing the connections between state highways and local roads as well as access to state highways from adjacent land to support the medium to long distance travel function of key arterial roads.

Substantial improvements have been made to the state highway network recently, especially in Nelson City, the Tasman District and Blenheim. State highways in Marlborough, Nelson and Tasman are now generally of a high standard. To ensure this standard is maintained, the Awatere Bridge Replacement project on SH1, south of Blenheim, was funded for construction in 2005/2006 and is underway. Additionally, the SH6 Whangamoa South and SH60 Ruby Bay projects are included for construction, subject to confirmation of project scope.

Road Safety

Transit has identified a number of small and medium sized projects to improve the safety and efficiency of sections of state highway and to improve safety at intersections, for progress in the next three years. Projects include: SH60 Flush Median in Appleby and SH62 seal widening of Rapaura Road from Jefferies to Wratts, and Wratts to SH1. Work on the management or removal of roadside hazards will continue.

Secure and Efficient Transport Corridors

The following intersection improvements are aimed at reducing congestion and contributing to more efficient transport corridors: constructing the Tahunanui intersection in Nelson, as well as the McGlashen Avenue and Three Brothers Corner intersections in Richmond, all on SH6.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. A passing lane project has been identified for progress in the next three years on SH1 at Grovetown, north of Blenheim.

Walking and Cycling

Three projects that are part of Nelson City's Atawhai Walking and Cycling project have been identified for construction on SH6 to the north of Nelson: Bayview Road to Atawhai Drive, Marybank to Tui Glen Road, and Tui Glen Road to Bayview Road. In addition the Appleby River Bridge enhancement is proposed.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities Transit proposes to progress a facility at Hira on SH6.

Strategic Studies

Upcoming studies include the Blenheim and Wairau Plains Strategic Study, the Tasman Passing Lane Investigation and the Motueka Study.

Maintenance and Operations

Maintenance and operations activities make up the majority of the forecast expenditure in the Marlborough/Nelson/Tasman region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Resurface 95km of highway, including 5km with low noise surfacing
- Strengthen 8km of highway
- Continue to improve the prediction of winter road conditions in order to improve emergency responses to snow and ice, and continue to trial the use of the anti-icer calcium magnesium acetate
- Continue to manage local roads in Marlborough (under contract to Marlborough District Council).

NELSON/MARLBOROUGH/TASMAN State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
1	Awatere Bridge Replacement	Access and Mobility	3.1			
60	Ruby Bay Bypass ®	Access and Mobility	$$$			
6	Whangamoa South Realignment ®	Access and Mobility	$$$			
6	Hope Saddle Realignment ®	Access and Mobility	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
60	SH60 Flush Median	Safety and Personal Security	1.6			
6	Tahunanui Intersection	Safety and Personal Security	1.8			
6	3 Brothers Corner Intersection	Safety and Personal Security	0.1			
62	SH62 Rapaura-Jefferies to Wratts	Safety and Personal Security	0.1			
62	SH62 Rapaura-Wratts to SH1	Safety and Personal Security	0.1			
6	McGlashen Ave Intersection	Access and Mobility	3.6			
6	Sneiders Creek Realignment	Safety and Personal Security	0.1			
63	Eves Valley Bridge 2L	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

NELSON/MARLBOROUGH/TASMAN State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Passing Lanes		**Total Phase Cost**			
1	Grovetown Nth Bd PL	Safety and Personal Security	0.8	Construction		
	Stock Effluent Disposal Facility					
6	Hira SEDF	Environmental Sustainability	0.4	Construction		
	Walking & Cycling					
6	Atawhai Walking and Cycling Project	Public Health	$			
60	Appleby River Bridge Cycleway	Public Health	$			
	Strategic Studies					
	North Nelson to Brightwater					
	Richmond Development and Transportation Study (joint study with Tasman District Council)					
	Blenheim & Wairau Plains Strategic Study					
	SH1 Blenheim to Christchurch					
	Nelson/Marlborough/Tasman Passing Opportunities Plan					

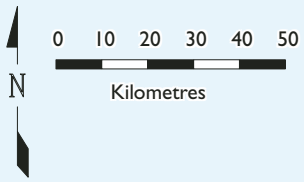
Projects in investigation or design may not necessarily proceed to construction.

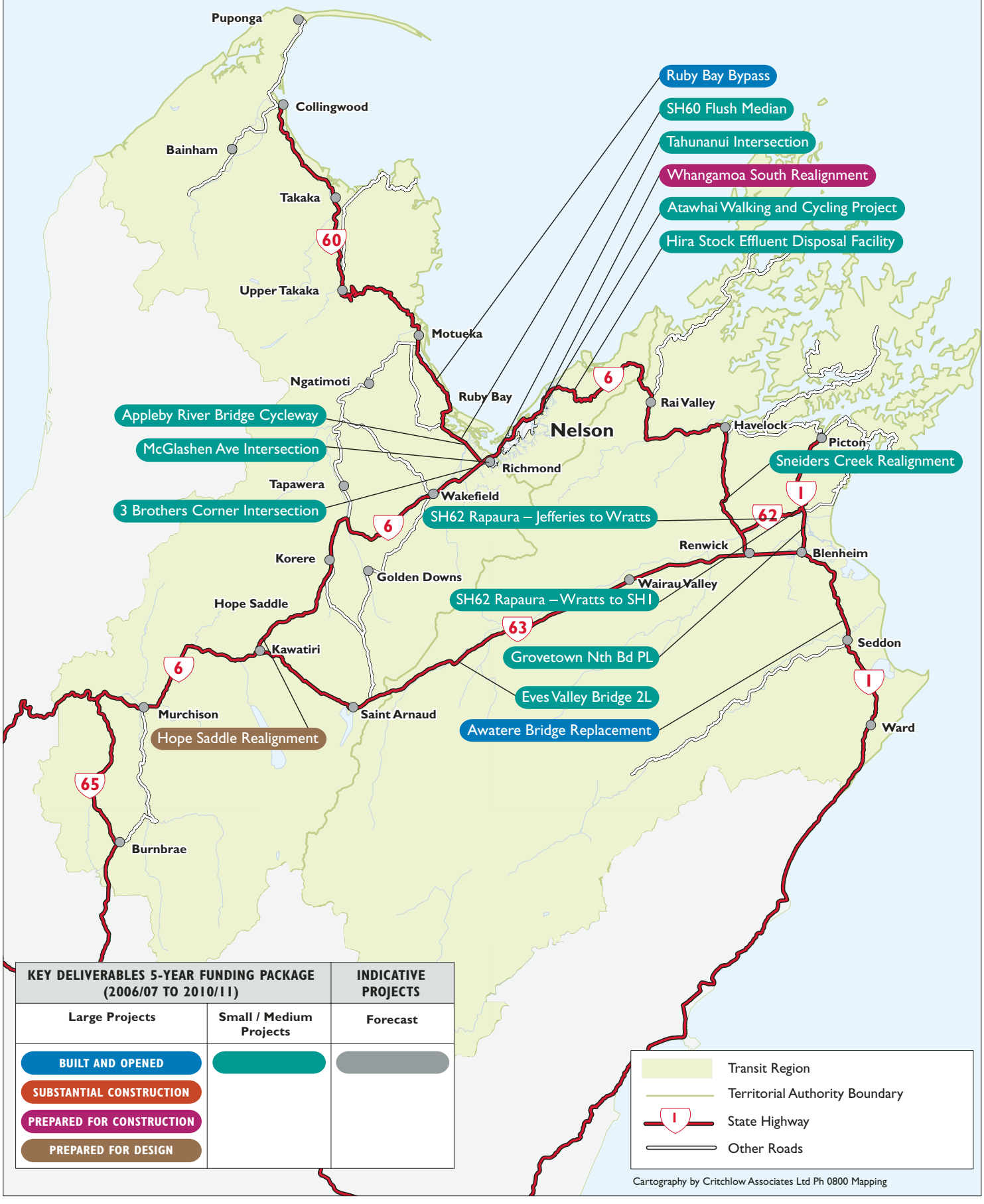
Fig NM

NELSON/MARLBOROUGH/ TASMAN REGIONS

State Highway Network at 01 July 2006

TRANSIT NEW ZEALAND ARARAU AOTEAROA





KEY DELIVERABLES 5-YEAR FUNDING PACKAGE (2006/07 TO 2010/11)		INDICATIVE PROJECTS
Large Projects	Small / Medium Projects	Forecast
BUILT AND OPENED		
SUBSTANTIAL CONSTRUCTION		
PREPARED FOR CONSTRUCTION		
PREPARED FOR DESIGN		

Transit Region

Territorial Authority Boundary

1 State Highway

Other Roads

Cartography by Critchlow Associates Ltd Ph 0800 Mapping

KEY TRANSPORT ISSUES

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

- Road safety
- Congestion: traffic on the main arterial routes into and within Christchurch City is increasing by 4 percent each year. Journeys during peak periods are regularly taking 15-20 minutes longer than during off-peak periods
- Ongoing residential development on the outskirts of Christchurch. The Greater Christchurch Urban Development Strategy aims to integrate land use and transport for the social, economic and cultural wellbeing of the Christchurch community, including integrating other forms of transport with the road network
- Route security of interdistrict highway especially Alpine passes
- Ongoing commercial development to the west of Christchurch, around SH1 and SH73
- Dairy activity in Canterbury centred on the Clandeboye Dairy Factory
- Access to the Ports of Lyttleton and Timaru
- Continuing tourism development around Kaikoura, south Canterbury and the Mackenzie Country
- Provision of passing opportunities on SH1, north of Kaikoura and south of Ashburton
- Provision of walking and cycling activities
- Provision for public transport priorities where necessary
- Significant heavy vehicle growth on SH1
- High car ownership and use in Christchurch and Canterbury.

How we plan to address these key issues

Transit will work closely with the regional and district councils to ensure there is alignment in priorities, to relieve congestion and support regional growth strategies, particularly the Christchurch Urban Development Strategy.

While there is a significant emphasis for Transit in Canterbury on maintaining the existing state highway network, there are a number of activities prioritised in the 10-year State Highway Forecast to reduce congestion, improve road safety, and improve the security and efficiency of routes into and out of Canterbury.

A further priority is managing the connections between state highways and local roads, as well as access to state highways from adjacent land, to support the strategic long distance travel function of key arterial roads.

Travel Demand Management

The highest priority for the Canterbury region is the implementation of measures to support a Travel Demand Strategy outlined in the Regional Land Transport Strategy. Travel Demand Management (TDM) is a combination of activities that together seek to reduce the rate of traffic growth by measures such as encouraging the use of alternative modes.

Transit intends to implement TDM in Christchurch through infrastructure improvements for public transport on state highways that coincide with core public transport routes, such as Main North Rd. Transit will continue to work with Environment Canterbury and Christchurch City Council to further the development of the Christchurch Travel Demand Management Strategy.

Access to the North

Further project investigation and scoping will be undertaken on improving access on northern approaches to Christchurch. Specific activities include a four-lane arterial to link the Northern Motorway with QE2 Drive, and the Western Bypass of Belfast (Christchurch Northern Links Study).

Access and Mobility around Christchurch

The duplication and extension of the Christchurch Southern Motorway (SH73) south of the city and the four-laning of the Western Corridor between Sawyers Arms and Yaldhurst Road will ensure efficient travel along these key routes.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of activities to improve the safety and efficiency of sections of state highway, including at intersections. Proposed improvements are aimed at reducing congestion and contributing towards more efficient transport corridors. Work on the management or removal of roadside hazards will continue.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and crashes. Transit plans to progress further passing lanes on SH1 south of Timaru and south of Ashburton.

Walking and Cycling

Walking and cycling activities identified for Canterbury include continuing Christchurch City Cycle Lane Safety Improvements and investigations into options for improving cycle safety at "pinch points" around Canterbury.

Stock Effluent Disposal Facilities

Canterbury is part of a national programme to provide a safe and convenient network of stock effluent disposal facilities. The network will be completed with the Pareora Stock Effluent Disposal Facility, south of Timaru and the Kaikoura facility. Glasnevin, Tinwald and Springfield continue to be monitored and promoted.

Strategic Studies

Strategic studies for the Canterbury region will further improve our long-term planning and assist good decision-making.

New Studies proposed are the Halswell Rd Strategic Study, the southern Motorway Extension (Halswell Rd Junction Rd to Waterholes) and the Strategy Study Implementation for Urban Christchurch.

A study of the Waitaki bridges will be undertaken to identify the designation and design requirements of a future bridge replacement. A study of Kaikoura's transportation needs will be undertaken to develop an appropriate management plan.

Maintenance and Operations

Maintenance activities make up the majority of the forecast expenditure in the Canterbury. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake 117km of resurfacing, including 2km with low noise surfacing
- Strengthen 25km of state highway
- Improve the availability of road condition information to road users using electronic variable message signs, as already in place on SH7 (Lewis Pass), on SH73 (Arthurs Pass) and in Kaikoura on SH1
- Use thermal mapping technology on the inland network to better predict where ice will occur
- Introduce more road weather stations to improve road condition predictions and maintenance team responses to ice and snow, and continue the use of the de-icer calcium magnesium acetate
- Continue risk analysis of rock falls and river erosion and prioritise work accordingly
- Strengthen a number of bridges on the network to reduce their vulnerability in the event of a severe earthquake
- Continue to maintain and improve the coastal defences of SH1, north and south of Kaikoura
- Work with the Department of Conservation to ensure that maintenance work within New Zealand's national parks represents international best practice
- Continue with a programme of improvements and upgrade work to tunnels to more closely meet appropriate safety standards.

CANTERBURY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
73	Christchurch Southern Motorway Extension ® §	Access and Mobility	2.8			
73	Christchurch Southern Motorway Extension ® §	Access and Mobility	$$$			
	Christchurch TDM Implementation	Economic Development	$			
1	Christchurch Northern Arterial Rural ®	Access and Mobility	$$$			
1	Memorial Ave Intersection (N/R)	Economic Development	$$			
1	Memorial Ave to Yaldhurst Rd 4L	Access and Mobility	$$			
1	Sawyers Arms to Memorial Ave 4L	Access and Mobility	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
1	Belfast Intersection Upgrade	Safety and Personal Security	0.9			
74	Lyttelton Tunnel Deluge System	Safety and Personal Security	0.2			
73	Yaldhurst Rd / Curletts Rd Intersection	Access and Mobility	0.5			
1	Halswell Junction Rd / MSR Intersection Signalisation	Access and Mobility	1.3			
74	Marshland Rd / QEII Dr Intersection Upgrade	Economic Development	0.1			
73	Mingha Bluff to Rough Creek	Access and Mobility	0.1			
8	Burkes Pass West Curve Realignment ®	Safety and Personal Security	0.4			
75	SH75 / Dunbars Rd Intersection ® §	Access and Mobility	1.6			
73	Pound Rd Intersection ®	Access and Mobility	2.8			

§ in conjuction with third party contributions outside NLTP funding

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

(N/R) denotes national funding, however Land Transport NZ has indicated possible regionally distributed funding

Projects in investigation or design may not necessarily proceed to construction.

CANTERBURY State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
1	Lineside Rd On-Ramp	Safety and Personal Security	0.2			
1	Improvement to the Shingle Fans	Safety and Personal Security	0.1			
1 / 8	SH1 & SH8 Intersection Improvements ® §	Access and Mobility	1.2			
	Passing Lanes					
1	Ealing PL ®	Safety and Personal Security	1.0			
1	St Andrews North PL ®	Safety and Personal Security	0.1			
1	Orari South PL	Safety and Personal Security	0.1			
1	Orari North PL	Safety and Personal Security	1.3			
	Walking & Cycling					
	Christchurch City Safe Cycling Facilities	Public Health	$			
	Strategic Studies					
	Ashburton Strategic Study					
	Timaru Strategic Study					
	Christchurch Transportation Model Update					
	Christchurch Northern Links Strategic Study					
	SH1 Woodend Bypass					
	Halswell Road Strategic Study					
	Southern Motorway Extension Halswell Road Junction to Waterholes					
	SH73 Route Security Study					
	SH82 Waitaki Bridges					

Projects in investigation or design may not necessarily proceed to construction.

§ in conjuction with third party contributions outside NLTP funding

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

KEY TRANSPORT ISSUES

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

- Road safety: a key concern is the potential conflict between heavy and light vehicle traffic, particularly on single-lane bridges on SH6
- Ensuring secure and efficient transport corridors to the east via SH73 and Arthur's Pass, and via SH7 and Lewis Pass, to the north via SH6 and Hope Saddle, and to the south via SH6 and the Haast Pass
- Increasing traffic due to the coal mining, dairy and tourist industries
- Lack of passing opportunities.

How we plan to address these key issues

State highway 6 forms the essential spine for land transport on the West Coast. A strategic study looking at route security (including areas of rockfall and coastal erosion) and passing opportunities will be undertaken. Significant works on SH73 over recent years have greatly improved the security of this strategic link. The latest improvement to be completed was the construction of a new rail bridge at the Otira Underpass, which has allowed the vertical clearance to be increased for road traffic. Vehicles of all legal dimensions can now use this route to access the West Coast.

Traffic volumes on the West Coast are generally quite low and the state highway network is maintained to a high standard for low-volume highways. In maintaining this standard, Transit acknowledges the large tourist content of the traffic in this region. While the emphasis for Transit in the West Coast region is on maintaining the existing state highway network, there are a number of activities prioritised in the 10-year State Highway Forecast to improve road safety as well as route security and efficiency in the West Coast region.

A further priority is managing the connections between state highways and local roads as well as access to state highways from adjacent land to support the strategic long distance travel function of key arterial roads.

The Arahura River Bridge is in urgent need of replacement. There would be significant negative impacts on the West Coast network if the bridge was to become unserviceable. We are working closely with ONTRACK and will be carrying out design in 2007 with construction following soon after.

The lack of alternative access to and through the West Coast means that both SH73 and SH6 are of great strategic importance to the West Coast economy.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of small to medium activities to improve the safety and efficiency of sections of state highway, including the Goat Creek Bridge Replacement on SH73. In addition, traffic signals will be installed on SH6 through the Buller Gorge to improve the safety of passing vehicles in some of the narrower locations.

Stock Effluent Disposal Facilities

In accordance with the plan agreed with local authorities a new stock effluent disposal facility is proposed for SH7 at either Reefton or Springs Junction, depending on stock movements. A facility at Jacksons on SH73 is also being progressed.

Walking and Cycling

We are proposing to prepare a West Coast Cycle Strategy in association with local authorities, to improve our long term planning and ensure good decisions that lead to safer and more efficient transport networks.

Passing Lanes

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. Transit will continue to develop a strategy to identify possible locations for passing opportunities, using a mix of slow vehicle bays, seal widening and passing lanes.

Strategic Studies

A new strategic study proposed is the Route Security Study for SH6, which will identify mitigation measures for sections of SH6 under threat of coastal erosion and rockfalls.

Maintenance and Operations

Maintenance activities make up the majority of the forecast expenditure in the West Coast region.
In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake 91km of resurfacing
- Strengthen 6.5km of highway
- Improve the availability of road condition information to road users at critical points on the network using electronic variable message signs, as erected on SH7 (at Lewis Pass and Rahu Saddle). Signs for SH73, at Arthur's and Porters Pass, are soon to be commissioned
- Use thermal mapping technology on the inland network to predict where ice may occur
- Introduce more road weather stations to improve emergency responses to ice and snow on roads, and continue to trial the use of the de-icer calcium magnesium acetate
- Continue to monitor Waiho River erosion at Franz Josef and take appropriate action to ensure SH6 remains safe and open
- Continue risk analysis of rock falls and river erosion and prioritise works accordingly, to avoid road closures
- Strengthen a number of bridges on the network to reduce their vulnerability in the event of a severe earthquake
- Work with the Department of Conservation to ensure maintenance works within national parks represent best practice
- Complete the strengthening of the three suspension bridges (Fox, Cook, and Karangarua) on SH6 in south Westland to remove the current weight restriction, which is a significant impediment to heavy goods movement in this area
- Continue with improvements in traffic management during incidents on the network.

WEST COAST State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
6	Gates of Haast ®	Safety and Personal Security	$$			
6	Arahura Bridge Replacement	Safety and Personal Security	$$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
6	Buller Gorge Signals	Safety and Personal Security	0.1			
73	Goat Creek Bridge Replacement ®	Safety and Personal Security	0.1			
7	McKendries Corner ®	Safety and Personal Security	0.8			
	Stock Effluent Disposal Facility					
73	Jacksons SEDF	Safety and Personal Security	0.4			
6	Reefton – Springs Junction SEDF	Environmental Sustainability	0.1			

Projects in investigation or design may not necessarily proceed to construction.

Strategic Studies

SH6 Route Security Study

West Coast Passing Opportunities Plan

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Fig WC

WEST COAST REGION

State Highway Network at 01 July 2006

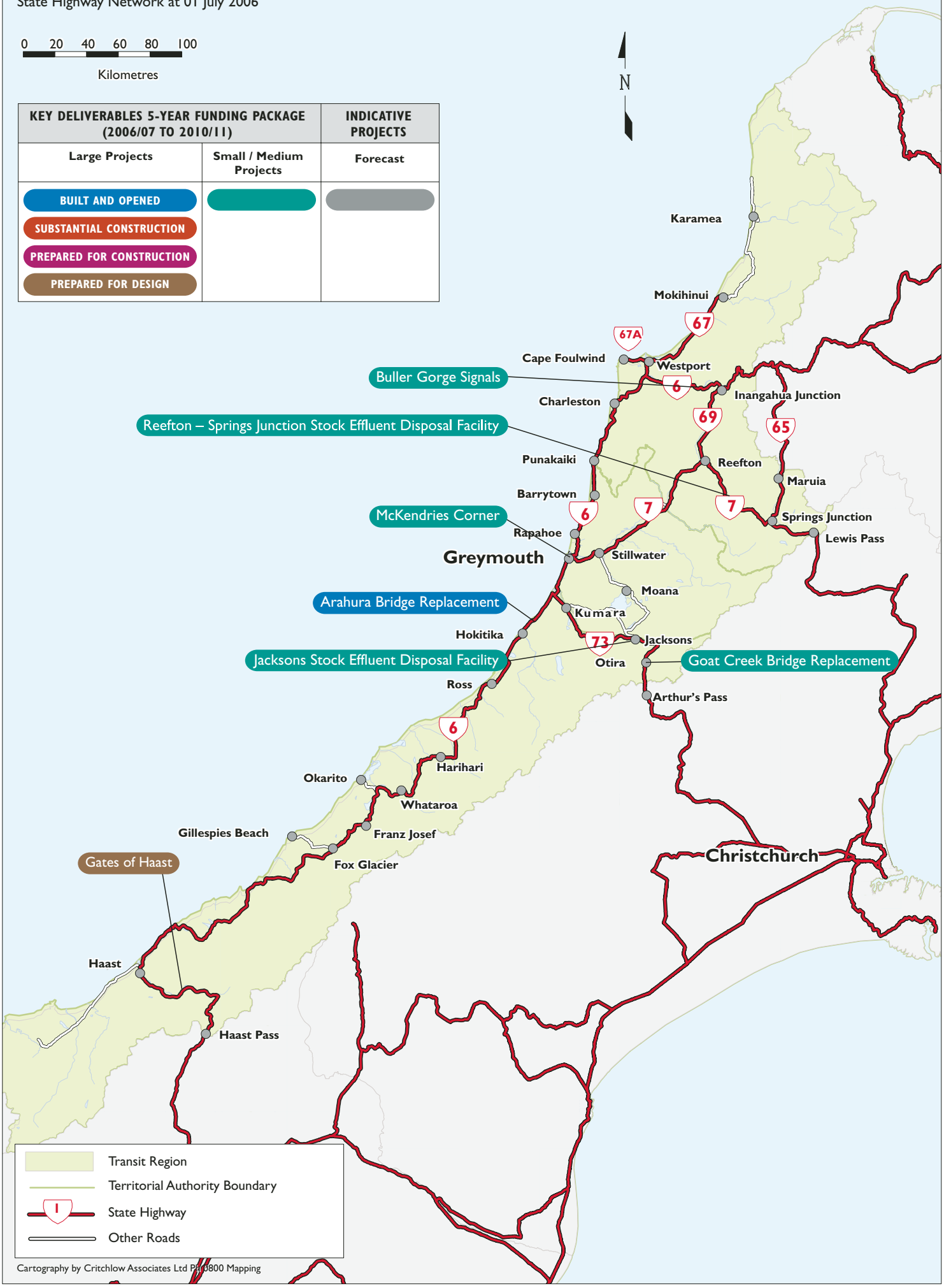
TRANSIT NEW ZEALAND ARARAU AOTEAROA

0 20 40 60 80 100

Kilometres

N

KEY DELIVERABLES 5-YEAR FUNDING PACKAGE (2006/07 TO 2010/11)		INDICATIVE PROJECTS
Large Projects	Small / Medium Projects	Forecast
BUILT AND OPENED		
SUBSTANTIAL CONSTRUCTION		
PREPARED FOR CONSTRUCTION		
PREPARED FOR DESIGN		



Cartography by Critchlow Associates Ltd PH 0800 Mapping

KEY TRANSPORT ISSUES

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

- Road safety
- Forestry traffic: over the next 5 to 10 years the region is anticipating a significant increase in forest harvesting to two million tonnes per year, much of which will be exported through Port Chalmers
- Tourist traffic: increasing particularly around Queenstown and Wanaka
- Areas of significant and rapid growth in Central Otago and the associated impact on the transport network
- Congestion in Dunedin and Queenstown.

How we plan to address these key issues

While there is a significant emphasis for Transit in Otago on maintaining the existing state highway network, there are a number of activities prioritised in the State Highway Forecast to improve road safety, route security and route efficiency in the Otago region.

A key priority is managing the connections between state highways and local roads, as well as access to state highways from adjacent land, to support the medium to long distance travel function of State highways.

The key priority for the Otago region is the investigation into the Caversham Bypass project. This is an important project for achieving a safe and efficient corridor between Dunedin and the south, but is only being progressed with a contribution from the regionally distributed funding allocation for Otago. The East Taieri Bypass on SH1 (near Mosgiel) is being investigated as a long-term option to improve traffic flow between Dunedin and the south, particularly Dunedin Airport. Further investigation will be undertaken on the East Taieri Bypass to determine the need for the current designation.

Provision has been made for the investigation of a new bridge to replace the existing one-lane bridge at Kawarau Falls on SH6 to the south of Queenstown, to improve safety, route efficiency and driver comfort in an area that is experiencing rapid population growth. Further projects are likely to be identified for the Queenstown area from the Wakatipu Transportation Study currently underway and some provision has been made for funding their development.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of activities to improve the safety and efficiency of sections of state highway, including intersection improvements and realignments, for progress in the next five years. Some are subject to regional distribution funding. Projects that are currently underway and which will be completed in 07/08 are, SH1 Tunnel Hill, west of Lawrence, SH1 Tumai – Waikouaiti and SH8 Morven Hills Bridge widening.

Intersection improvements will be constructed at SH84 Anderson Road, Wanaka, SH1 Thames Street, Oamaru and SH1 One-Way Pair, Dunedin.

Realignments will be constructed at SH8 Pig Hunters (Manuka Gorge) and SH1 Jefferies Road, South of Palmerston.

Bridge improvements are being investigated for Roaring Meg, west of Cromwell on SH6. Further work on the management or removal of roadside hazards will continue.

Passing Opportunities

Limited passing opportunities in some parts of the region's road network lead to driver frustration and accidents. Two passing lanes Waihola northbound and Clarendon on SH1 south of Dunedin will be completed. Two further two passing lanes will be investigated on SH1, Waihola southbound and Brydone Memorial, south of Oamaru. Progress on these is dependent on regional distribution funding.

Walking and Cycling

Investigations are underway on SH88 in Dunedin to continue the harbourside cycleway between Adderly Terrace to De Lacy Street to make this section of highway safer for cyclists and pedestrians. This is part of an integrated walking and cycling network being developed in association with Dunedin City Council and Otago Regional Council.

Strategic Studies

We are undertaking, or propose to undertake, three strategic studies for the Otago region, to improve our long term planning and assist good decision-making. The studies are the Wakatipu Transportation Study (Queenstown), a study of Oamaru, and the Waitiki River to Waipahi Study.

Maintenance and Operations

Maintenance activities make up a large proportion of the forecast expenditure in the Otago region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake some 134km of re-surfacing, including 5km of thin asphaltic surfacing, which, while more expensive, is more durable and quieter
- Undertake 10km of pavement rehabilitation
- Manage risks from snow and ice on the network by using the anti-icer calcium magnesium acetate and implement more cost effective and safer methods as they become available
- Follow up the first stage of thermal mapping that has been carried out throughout Otago
- Continue to develop procedures for managing rock falls and major slips to ensure route security and safety
- Continue to manage wet road crashes by maintaining high skid resistant surfacing
- Plant on sensitive areas along SH1 at Katiki Beach, Kilmog and the Northern Motorway, to enhance the environment
- Reduce the likelihood of “heavy metals” draining from the Fairfield Motorway into Kaikorai Stream estuary by constructing “catch pits” (chambers that allow heavy metals to be separated out)
- Enhance the landscaped areas on the Fairfield Motorway and plant low growth grass on selected road verges

  Install variable message signs on Lindis Pass (SH8) and the Northern Motorway, to give motorists up to date information on road conditions
- Develop a strategy, including an in-depth crash analysis, in an effort to reach the Government’s 2010 safety targets.

OTAGO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
1	Tumai – Waikouaiti Realignment	Safety and Personal Security	0.9			
1	Caversham 4 Laning ®	Access and Mobility	0.6			
1	Caversham 4 Laning (N/R)	Access and Mobility	$$$			
6	Kawarau Falls Bridge Replacement ®	Access and Mobility	$$			
1	East Taieri Bypass ®	Access and Mobility	$$			
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
8	Morven Hills Bridge Improvements	Safety and Personal Security	0.6			
1	Clarendon Realignment and Passing Lane	Safety and Personal Security	1.1			
8	Tunnel Hill Realignment	Safety and Personal Security	0.8			
6	Albert Town Bridge Improvements	Safety and Personal Security	0.2			
84	Anderson Rd Intersection Improvements	Access and Mobility	0.5			
1	Alma Safety Improvements	Safety and Personal Security	0.1			
1	One Way Pair Pedestrian Safety Improvements ®	Safety and Personal Security	1.0			
8	Alexandra SH8/85 Intersection Improvements	Safety and Personal Security	0.1			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

(N/R) denotes national funding, however Land Transport NZ has indicated possible regionally distributed funding

Projects in investigation or design may not necessarily proceed to construction.

OTAGO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$ 5-20M $$$ 20-100M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	SMALL & MEDIUM PROJECTS (continued)		**Total Phase Cost**			
6	Boyd Rd Realignment	Safety and Personal Security	0.1			
1	Crawford (Jervois St and Police St)	Safety and Personal Security	0.1			
6	Roaring Meg Bridge Improvements	Safety and Personal Security	0.1			
1	Jefferis Rd Realignment	Safety and Personal Security	1.4			
1	Kakaho Creek Realignment	Safety and Personal Security	0.1			
1	Moeraki Vertical Realignment ®	Safety and Personal Security	0.9			
8	Pig Hunters Rd Safety Improvements	Safety and Personal Security	2.8			
1	Waitati Curve Realignment	Safety and Personal Security	0.1			
1	Pine Hill Heavy Vehicle Run Off	Safety and Personal Security	0.1			
87	Riccarton / School Rd Intersection Improvements	Safety and Personal Security	0.1			
1	Thames St (Oamaru) Safety Improvements	Safety and Personal Security	1.9			
85	Macraes Rd Intersection Improvement		0.8			

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Projects in investigation or design may not necessarily proceed to construction.

OTAGO State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	Passing Lanes (Priority Order)		**Total Phase Cost**			
1	Waihola Nth Bd PL	Safety and Personal Security	0.3			
1	Balclutha to Clinton Sth Bd PL	Safety and Personal Security	0.1			
1	Balclutha to Clinton Nth Bd PL	Safety and Personal Security	0.1			
1	Waihola Sth Bd PL ®	Safety and Personal Security	0.1			
1	Brydone Memorial Nth Bd PL ®	Safety and Personal Security	0.1			
	Walking & Cycling					
88	Adderly Tce to De Lacy St Cycling Improvement	Public Health	$			
	Strategic Studies					
	Wakatipu Transportation Study					
	SH88 Cycling Improvements					
	SH88 to Port Chalmers Strategic Study					
	SH6 / 8 / 93 Passing Opportunities Plan					
	SH1 Waitaki River to Waipahi					
	Oamaru Strategic Study					

Projects in investigation or design may not necessarily proceed to construction.

Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

KEY TRANSPORT ISSUES

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

- Road safety
- Forestry traffic
- Dairying traffic: the increase in the number of dairy farms is seeing increasing heavy vehicle movements, particularly around the processing plant at Edendale
- Tourist traffic: particularly increases on the southern scenic route, to Fiordland National Park and between Queenstown and Milford Sound (SH94)
- Lack of passing opportunities, particularly on SH1 between Edendale and Invercargill.

How we plan to address these key issues

Most state highways in Southland carry relatively low traffic volumes and few improvements are currently required apart from minor safety improvements, improvements to Homer Tunnel on SH94, and a realignment of SH1 at Edendale. Southland's economic growth and conversion of pasture farming activity to dairying is actively monitored to ensure that the current high levels of service on Southland highways are maintained.

While the emphasis for Transit in Southland is on maintaining the existing state highway network, there are a number of activities prioritised in the State Highway Forecast to improve road safety as well as route security and efficiency.

A key priority is managing the connections between state highways and local roads, as well as access to state highways from adjacent land, to support the medium to long distance travel function of state highways.

There is a continuing need for active management of SH94 between Te Anau and Milford Sound to provide an appropriate level of avalanche protection and traffic management. Transit is continuing investigations into replacing the eastern portal to the Homer Tunnel that was damaged some years ago. This tunnel provides the only road access to the key tourist destination of Milford Sound.

In addition, the Edendale Realignment is proposed to improve the safety of that section of SH1 through Edendale.

Road Safety – Secure and Efficient Transport Corridors

Transit has identified a number of activities to improve the safety and efficiency of sections of state highway in Southland, including realignments, bridge widening and intersection improvements, for progress in the next five years. Further work on the management or removal of roadside hazards will continue.

Stock Effluent Disposal Facilities

As part of a national programme to provide a safe and convenient network of stock effluent disposal facilities Transit is proposing a new stock effluent disposal facility on SH1, between Gore and Mataura.

Strategic Studies

We are proposing to undertake a number of strategic studies for the Southland region, to improve our long term planning and assist good decision-making. These include SH94/95 The Key to Milford (Te Anau), Invercargill to Winton and Lorneville to Wallacetown.

Maintenance and Operations

Maintenance activities make up the majority of the forecast expenditure in the Southland region. In addition to preserving the highway network and undertaking maintenance and improvements to meet future levels of service, we propose to:

- Undertake 74km of resurfacing, including 1.5km of thin asphaltic surfacing, which, although more expensive, is more durable and quieter
- Undertake 13km of road pavement rehabilitation
- Ensure the latest hazard management systems are installed at Homer Tunnel on SH94. The current avalanche hazard management system is recognised as being world-class. We intend to ensure that the programme remains adequately funded and the latest techniques are used to maximise access to Milford Sound and minimise risks to road users
- Maintain high skid resistance surfacing to help prevent wet road crashes
- Develop a strategy, including in-depth crash analysis, in an effort to meet the Government's 2010 safety targets
- Continue with improvements in traffic management during incidents on the network.

SOUTHLAND State Highway Plan and Forecast for 2007/08 to 2016/17

Legend: Nature of work

Committed Investigation	Committed Design	Committed Construction
Investigation	Design	Construction

The grey symbols show indicative timings given that the investigation or design phase has not been completed.

SH	Project	Primary LTMA Objective	Estimated Cost Remaining $ < 5M $$$ 20-100M $$ 5-20M $$$$ 100+M	Land Transport Programme 07/08	Plan 08/09–10/11	Forecast 11/12–16/17
	LARGE PROJECTS					
94	Homer East Portal Avalanche Shed	Safety and Personal Security	$$$		Design, Construction	Construction
1	Edendale Realignment	Safety and Personal Security	$			Design, Construction
	SMALL & MEDIUM PROJECTS		**Total Phase Cost**			
94	Eweburn to Henry Creek Safety Improvements ®	Safety and Personal Security	1.6	Design, Construction		
1	Longbush Curve Realignment	Safety and Personal Security	0.1	Design		
96	Gill Road Realignment	Safety and Personal Security	0.1	Design		
6	Gap Rd Intersection Improvements	Safety and Personal Security	0.1	Investigation		
1	Boundary Creek Bridge Widening	Safety and Personal Security	0.2	Construction		
94	Falls Creek Bridge Widening ®	Safety and Personal Security	0.1	Investigation		
6	Dipton Curve Realignment ®	Safety and Personal Security	0.1	Investigation		
	Passing Lanes					
1	Dowling Rd / Mona Bush Rd PL	Safety and Personal Security	0.1	Investigation		
1	Baird Rd – Kerr Rd PL	Safety and Personal Security	0.1	Investigation		
6	Wilsons Crossing PL ®	Safety and Personal Security	0.1	Investigation		
	Stock Effluent Disposal Facilities					
1	Gore to Mataura SEDF	Environmental Sustainability	0.2	Design, Construction		
6	Lumsden SEDF	Environmental Sustainability	0.2	Construction		
	Strategic Studies					
	SH94/95 The Key to Milford (Te Anau)					
	Invercargill to Winton / Lorneville to Wallacetown					

Projects in investigation or design may not necessarily proceed to construction.

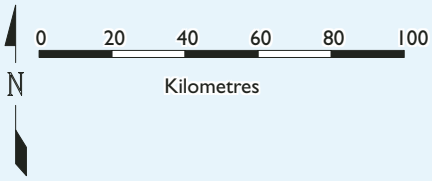
Indicative funding sources identified by Land Transport NZ in the NLTP

® denotes regionally distributed funds

Fig S

SOUTHLAND REGION

State Highway Network at 01 July 2006



Milford Sound
Hollyford
Homer East Portal Avalanche Shed
Falls Creek Bridge Widening
Eweburn to Henry Creek Safety Improvements
Kingston
Te Anau
Manapouri
Five Rivers
Mossburn
Lumsden
Lumsden Stock Effluent Disposal Facility
Dipton Curve Realignment
Boundary Creek Bridge Widening
Blackmount
Gore to Mataura Stock Effluent Disposal Facility
Dipton
Riversdale
Ohai
Nightcaps
Clifden
Gap Rd Intersection Improvements
Gore
McNab
Winton
Tuatapere
Otautau
Mataura
Gill Road Realignment
Dacre
Edendale
Wyndham
Lorneville
Riverton
Invercargill
Edendale Realignment
Wilsons Crossing PL
Fortrose
Bluff
Baird Rd - Kerr Rd PL
Dowling Rd/Mona Bush Rd PL
Longbush Curve Realignment
Oban

KEY DELIVERABLES 5-YEAR FUNDING PACKAGE (2006/07 TO 2010/11)		INDICATIVE PROJECTS
Large Projects	Small / Medium Projects	Forecast
BUILT AND OPENED		
SUBSTANTIAL CONSTRUCTION		
PREPARED FOR CONSTRUCTION		
PREPARED FOR DESIGN		

Transit Region
Territorial Authority Boundary
State Highway
Other Roads

Cartography by Critchlow Associates Ltd Ph 0800 Mapping

TRANSIT NEW ZEALAND DIRECTORY

www.transit.govt.nz

National Office
Investment House, Level 9
20 – 26 Ballance Street
PO Box 5084, Wellington 6145
New Zealand
T 04 499 6600
F 04 496 6666

Auckland Regional Office
Qantas House, Level 13
191 Queen Street
PO Box 1459, Auckland 1140
T 09 368 2000
F 09 368 2059

Northland Office
CPO Building, Level 1
Rathbone Street
PO Box 1899
Whangarei 0140
T 09 430 4355
F 09 459 6944

Hamilton Regional Office
BNZ Building, Level 4
354 Victoria Street
PO Box 973
Hamilton 3240
T 07 903 5100
F 07 957 1437

Tauranga Office
405 Cameron Road
PO Box 430
Tauranga 3140
T 07 927 6003
F 07 578 2009

Napier Regional Office
Napier Library Building
22 Station Street
PO Box 740
Napier 4140
T 06 835 1750
F 06 835 0283

Wanganui Regional Office
Seddon House
Park Place
PO Box 345
Wanganui 4540
T 06 345 4173
F 06 345 7151

Wellington Regional Office
Logical House, Level 8
186 – 190 Willis Street
PO Box 27 477, Wellington 6141
T 04 801 2580
F 04 801 2599

Marlborough Roads Office
The Forum, Level 1
Unit 2.4, Market Street
PO Box 1031, Blenheim 7240
T 03 577 1850
F 03 577 5309
0800 MARLRDS (0800 627 573)

Christchurch Regional Office
Education House, Level 7
123 Victoria Street
PO Box 1479
Christchurch 8140
T 03 366 4455
F 03 365 6576

Dunedin Regional Office
Skeggs House, Level 2
62 – 66 Tennyson Street
PO Box 5241, Dunedin 9058
T 03 477 8527
F 03 477 9237