

OTAGO STATE HIGHWAY FORECAST

EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Otago for the next 10 years are set out in Table O1. For forecast purposes only, Transit has made an assessment of regional distribution funding that will be available for state highways. These will be determined annually.

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

The Otago 10-year state highway forecast seeks to protect and preserve the existing asset, improve the efficiency and safety of transport corridors into and out of Otago, and improve road safety generally.

Major features of the forecast are:

- › Tumai to Waikouaiti Realignment on SH1, north of Dunedin, for a construction start in 2005/06 and a proposal to construct Caversham Bypass
- › other rural realignments, bridge improvements and other safety improvements
- › passing lanes on SH1
- › extensive remedial work on Nevis Bluff on SH6, undertaken in the next three years
- › SH6/6A Queenstown Strategic Study Investigation.

KEY REGIONAL TRANSPORT ISSUES

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

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

The key regional transport issues in Otago include:

- › tourist and domestic traffic and transportation issues in (Queenstown/Wanaka)
- › road safety
- › forestry production is expected to increase significantly over the next 5 to 10 years to 2 million tonnes with much of it being exported through Port Chalmers
- › areas of significant, rapid growth in Central Otago and its associated impact on the network.

TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

The Otago 10-year state highway forecast seeks to protect and preserve the existing asset, improve the security and efficiency of the roads into and out of Otago, and improve road safety.

The location of possible Otago projects in the 10-year forecast are shown in Figure O. The expected cost and possible timeframe for the development and construction of these activities is indicated in Table O2.

The timeframe for the development and construction of the improvements proposed in the state highway plan is indicative only, and is likely to change, depending on the use of additional funding from central government (known as 'regional distribution funding') to advance activities. While Transit

anticipates it will have further expenditure from regional distribution funding, this is yet to be determined. Indicative construction start dates are based on expected funding levels if 40 percent of regional distribution funding for Otago was allocated to state highways, spread evenly over 10 years.

State highways in Otago are generally of a high standard with a number of significant activities having been completed over the last 10 years. Apart from localised realignments to address significant safety concerns, rural highways require only relatively minor safety improvements and some additional passing lanes.

Transit continues to address requirements for improved availability and safety under winter conditions, and be responsive to changing risks in areas of instability and flooding.

Large improvement projects (with construction costs more than \$3M) have been planned for 10 years and small and medium-sized projects (with construction costs of less than \$3M) have been planned for three years.

Efficient and Safe Transport Corridors

Tourist Traffic

Tourism numbers continue to grow. Transit proposes to develop access management plans for routes to key tourist destinations particularly around Queenstown and Wanaka where land development is under pressure.

Road Safety

Transit plans to investigate and improve 'out of context' sections of state highway, remove or protect roadside hazards, provide a network of stock effluent disposal facilities and improve walking and cycling facilities.

Rural Realignments and other safety improvements

The large activity prioritised to start construction in 2005/06 in Otago is the SH1: Tumai to Waikouaiti Realignment. This 3.4-kilometre realignment will improve safety on a substandard section of SH1 between Oamaru and Dunedin.

The following small and medium-sized rural realignments and other safety improvements are under construction or have been completed:

- › SH1: Sharpes Bend Realignment, south of Oamaru
- › SH1: Waianakarua Bridge Widening, south of Oamaru
- › SH6: Wye Creek Bridge Two-laning, south of Frankton
- › SH8: Butchers Dam Realignment
- › SH6: Ripponvale – Lake Hayes Safety Retrofit
- › SH8: Half Mile Crash Barrier.

A number of small and medium-sized rural realignments and other safety improvements are prioritised for development and construction over the next three years. These include:

- › SH8: Tunnel Hill Realignment, west of Lawrence
- › SH6: Gentle Annie West Realignment, Kawarau Gorge
- › SH1: Moeraki Vertical Realignment
- › SH1: Lookout Point Safety Improvements Dunedin.
- › SH8: Pig Hunters Road Realignment, west of Milton
- › SH6: Boyd Road Realignment, south of Frankton
- › SH85: Macraes Rd Intersection Improvement
- › SH87: Riccarton/School Rd Intersection improvements.

A number of additional projects are proposed but are dependent on progress with other projects and the availability of regional distribution funding. They include:

- › SH6: Goldmining Centre Realignment, Kawarau Gorge
- › SH8: Morven Hills Bridge Improvements, south of Lindis Pass
- › SH8: McLays Curves Realignment, south of Omarama
- › SH6: Kawarau Falls Bridge Widening

- › SH1: Waitati Curve Realignment
- › SH1: Coast Road Intersection Improvements, north of Dunedin
- › SH1: Leith Saddle Realignment
- › SH6: Roaring Meg Realignment
- › SH1: Jacks Hill Road Vertical Realignment
- › SH8: Ryan Road Realignment
- › SH1: Orwell – Coquet St, Oamaru
- › SH1: Deborah Rail Overbridge Realignment
- › SH8: Lindis Crossing Bridge
- › SH1: Crawford St (Police St & Jervois St), Dunedin
- › SH1: Jefferis Road Realignment, north of Dunedin
- › SH1: One way Pair Safety Improvements Dunedin
- › SH6: Albert Town Bridge Improvements north of Wanaka
- › SH1: Waianakarua – Hampden Realignment south of Oamaru
- › SH8: Raes Junction Safety Improvements
- › SH1: Pine Hill Heavy Vehicle Runoff.

Stock Effluent Disposal Facilities

The stock effluent disposal facility on SH90 at Raes Junction will be operational by December. This facility will complement those sites already established.

Secure and Efficient Transport Corridors

Ongoing remedial work on Nevis Bluff in the Kawarau Gorge is required to improve route security. This work will involve approximately \$2.25M expenditure over the next three years. A number of other small to medium activities will also assist in safeguarding the network.

Passing Lanes

In addition to the passing lane on Lake Road (northbound) there are proposals (subject to regional distribution funding and progress with other projects) to complete 10 passing lanes to improve route efficiency on SH1 both north and south of Dunedin. Recently completed passing lanes include:

- › SH6: Waitiri Passing Lane in Kawarau Gorge
- › SH6: Victoria Passing Lane in Kawarau Gorge.

Urban Areas

Transit is working with the Dunedin City Council to identify a long-term strategy for the arterial corridor through Dunedin City, which will incorporate the criteria of the Land Transport Management Act.

Transit proposes to investigate what can be done to improve pedestrian safety where the state highway passes through the university area. Work continues on the development of a truck-arrestor bed at the Pine Hill site.

Investigations into a four-lane bypass of Caversham are continuing. This is an important activity to secure a safe and efficient route exiting Dunedin to the south where current forecasts for traffic growth need to be aligned with road improvement plans.

The draft plan also includes a scheme for improvements to SH1 between Orwell Street and Coquet Street, Oamaru comprising primarily intersection improvements. This scheme is being developed in consultation with the Waitaki District Council.

Transit is working with the Queenstown Lakes District Council to develop a long-term solution for the rapidly growing demand on SH6A between Frankton and Queenstown, and SH6 Frankton Flats area.

Walking and Cycling

Transit proposes to continue minor improvements on SH88 to Port Chalmers to gradually upgrade this highway with a particular focus on walking and cycling facilities. The work to widen the carriageway and provide footpaths between De Lacy Street and Jessie Street will be completed by September. It is also

planned to widen the carriageway in isolated sections elsewhere between Ravensbourne, Adderly Terrace and De Lacy Street, as well as between Maia Street and Burkes Drive in Dunedin to make these sections of highway safer for cyclists and pedestrians.

Other activities to improve safety for cyclists and pedestrians include the raising of bridge handrails on combined cycle/walkways, such as on the Balclutha Bridge.

MAINTENANCE and OPERATIONS

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

- › undertake some 130 kilometres of resurfacing and 10 kilometres of road rehabilitation per year on state highways in Otago
- › manage the risk from snow and ice on the network through the use of the de-icer CMA (calcium magnesium acetate) and implement more cost-effective and safer methods as they become available. Work has commenced on ice prediction work known as Thermal Mapping throughout the whole of Otago and Southland.
- › continue to develop procedures for managing rock falls and major slips to protect route security and safety
- › continue the strategy of managing wet-road crashes through maintaining high-skid-resistance surfacings
- › undertake the restoration of some clay batters to encourage grass growth
- › maintain plantings on sensitive areas such as SH1 Katakahi Beach, Kilmog and Northern Motorway to enhance the environment.

Table 01

Forecasts of Expenditure on Maintenance and Improvements

Otago Region

	05/06 (\$M)	06/07 (\$M)	07/08 (\$M)	08/09 (\$M)	09/10 (\$M)	10/11 (\$M)	11/12 (\$M)	12/13 (\$M)	13/14 (\$M)	14/15 (\$M)	Total (\$M)
Maintenance											
Structural	12.1	12.6	13.6	14.2	14.9	15.5	16.2	16.9	17.7	18.5	152.3
Corridor	5.8	6.0	6.5	6.8	7.1	7.4	7.7	8.1	8.4	8.8	72.4
Professional Services	2.7	2.8	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	34.0
Property Management	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	3.2
Preventive Maintenance	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	2.0
Emergency Works	0.2	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.8	13.7
Sub-total	21.1	23.1	24.9	26.0	27.2	28.4	29.7	31.0	32.4	33.8	277.6
Improvements											
Minor Safety Projects	1.6	1.7	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5	20.7
Committed Projects	-	-	-	-	-	-	-	-	-	-	0.0
New Projects	5.5	8.3	8.6	7.7	10.3	14.0	7.7	7.8	8.1	8.3	86.4
Property Purchase	1.3	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.8	15.4
Walking & Cycling	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Sub-total	8.6	11.5	11.9	11.2	13.9	17.8	11.6	11.9	12.3	12.7	123.5
Total	29.7	34.6	36.9	37.2	41.1	46.2	41.3	42.9	44.7	46.5	401.1

Note: regional distribution funding for state highways forecast to be \$40M over 10 years