WEST COAST STATE HIGHWAY PLAN

EXECUTIVE SUMMARY

Transit's forecasts of expenditure on the West Coast for the next 10 years are set out in Table WC1. Transit anticipates it will have further expenditure from regional distribution funding, but this is yet to be determined.

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

The West Coast state highway 10-year plan seeks to protect and preserve the existing asset, improve the security and efficiency of the routes into and out of the West Coast, and improve road safety.

Major features of the plan are:

- investigations into the replacement of the Arahura Bridge
- four safety improvements, for construction in the next three years, comprising:
  - SH6: Littleman Straight South Curve
  - SH7: McKendries Corner Curve improvement
  - SH7: Spring Creek Curve realignment
  - SH7: Dawsons to Tindalls Creek guardrailing
- two more stock effluent disposal facilities at SH73 Jacksons and SH7 Reefton (or Springs Junction)
- cycle facilities on the Bullock Creek and Pororai River bridges on SH6 near Punakaiki, for construction in 2004/05
- developing cycle facilities for the Arahura and Taramahau bridges on SH6, and between Fox township and the Fox Glacier Road.

KEY REGIONAL TRANSPORT ISSUES

The key regional transport issues on the West Coast include:

- secure and efficient transport corridors – to the east via SH73 Arthur's Pass and SH7 Lewis Pass, to the north via SH6 Hope Saddle, and to the south via SH6 Haast Pass
- road safety – a key concern is the potential conflict of heavy and light traffic, particularly at single lane bridges on SH6
- increasing traffic demands associated with coal mining activity, dairy industry, and tourist industry.

TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

The state highway network forms the essential backbone for land transport on the West Coast. Significant improvements to SH73 over recent years have greatly improved the route security on this strategic link. The latest improvement to be completed is the construction of a new rail bridge at Otira Underpass where the vertical clearance has been increased for road traffic. Legal dimension vehicles 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.

Significant improvements proposed over the next 10 years are investigation of options at the Gates of Haast on SH 6 and options for a new bridge at Arahura to enhance the security of this route.

The locations of possible West Coast projects in the 10-year plan are shown in Figure WC. The expected cost and possible timeframe for the development and construction of these projects is indicated in Table WC2. The timing of projects could be advanced depending on the allocation of regional distribution funding. A final policy has yet to be determined by Transfund New Zealand (as at July 2004).

Large improvement projects (with construction cost 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.

Secure and efficient routes

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

Arahura River Bridge

The security of the Arahura River Bridge and its effect on the network is a significant concern, given the age of the bridge. Transit recognises the need to further investigate options to replace the bridge and has included this project as a potential project with likelihood of investigation funding in 2004/05.

Passing Lanes

Passing lanes are eventually proposed at:

- SH6: McKnights Creek
- SH6: Saltwater Creek
- SH73: East of Otira Viaduct
- SH73: Arthur's Pass Summit.

However, these passing lanes are not included in this three-year plan due to the relatively low traffic volumes currently recorded on these state highways.

Road Safety

Transit plans to remove 'out of context or surprise sections' on state highway, roadside hazards, provide a network of stock truck effluent disposal sites, and remove severe constrictions and safety risks associated with walking and cycling.

Rural Highways

Improvements at Littleman Straight on SH6 and McKendries corner on SH7 are currently under development.

Other small and medium-sized projects for development include:

- SH7: Spring Creek Curve realignment
- SH7: Dawsons to Tindalls Creek guardrailing.

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

Stock Effluent Disposal Facilities

In accordance with the plan agreed with local authorities the stock effluent disposal facility at SH6: Hokitika was completed and a number of new stock effluent disposal facilities are proposed on the West Coast located at:

- SH73: Jacksons
- SH7: At either Reefton or Springs Junction dependent on stock movements.

Walking and Cycling

A number of cycling projects have been planned for construction in the next three years. Transit proposes to construct cycle facilities on the Bullock Creek Bridge, the Pororai River Bridge, the Taramakau River Bridge and the Arahura River Bridge – all on SH6.

In addition, construction of a walkway between Fox Glacier and the township is proposed.

MAINTENANCE and OPERATIONS

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

- improve the road condition information to road users at critical points on the network by the use of electronic variable message signposting
- introduce thermal mapping of the inland network to better predict where icing will occur
- introduce more road weather stations to improve emergency responses to ice and snow and continue to trial the use of the de-icer CMA (calcium magnesium acetate)
- continue to monitor the behaviour of the Waiho River at Franz Josef on SH6 and take appropriate action to ensure the route remains secure
- continue to work on a risk analysis of rock falls and river erosion and prioritise these works accordingly as threats to safety and route security occur
- implement risk-reduction works on bridges throughout the network to reduce the vulnerability of bridges in the event of a severe earthquake
- work with the Department of Conservation to ensure that maintenance works within the national parks represent world best practice.

Table WC1

Forecasts of Expenditure on Maintenance and Improvements

West Coast Region

	04/05 ($M)	05/06 ($M)	06/07 ($M)	07/08 ($M)	08/09 ($M)	09/10 ($M)	10/11 ($M)	11/12 ($M)	12/13 ($M)	13/14 ($M)	Total ($M)
Maintenance											
Structural	5.9	7.1	7.5	7.5	7.7	7.7	8.1	8.3	8.5	9.1	77.3
Corridor	3.3	3.5	3.6	3.7	3.8	3.9	4.1	4.2	4.2	4.5	38.7
Professional Services	1.7	2.2	2.4	2.5	2.6	2.8	3.0	3.1	3.3	3.5	27.3
Property Management	0.2	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	6.7
Preventive Maintenance	0.0	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	7.7
Emergency Works	0.0	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	7.5
Sub-total	11.1	15.0	15.6	16.1	16.4	16.8	17.6	18.1	18.7	19.8	165.3
Improvements											
Minor Safety Projects	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.4	11.5
Committed Projects	0.0	0.0	0.0	0.0	-	-	-	-	-	-	0.0
New Projects	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	11.5
Property Purchase	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8
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	2.0	2.2	2.3	2.4	2.4	2.5	2.6	2.6	2.8	2.9	24.7
Regional Distribution Funding	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	
Total	13.1	17.2	18.0	18.4	18.8	19.4	20.2	20.8	21.5	22.7	190.0

tbd = to be determined