

Land transport funding trends, issues and options

**Engagement to develop the Government Policy
Statement on land transport funding**

Ministry of Transport

March 2008

Land transport funding trends, issues & options

1. The Ministry of Transport has been tasked with helping the government develop a Government Policy Statement (GPS) on land transport funding.
2. The purpose of the GPS is to outline the government's objectives and funding priorities for the land transport sector for the period 2009/10 to 2015/16. The GPS will outline what the government expects to achieve in the land transport sector over this period, how it will achieve this by funding certain activity levels, and how this funding will be raised.
3. We are seeking your input to assist us in providing advice to the government. We would appreciate your feedback on the following questions:
 - How can funding best support achievement of the UNZTS targets?
 - Are there transport activities which, in the next three to ten years, should receive more funding so as to make quicker progress towards UNZTS targets?
 - What trade-offs can be made in the allocation of funds?
 - Are there areas where less funding should be allocated?
 - What changes should there be, if any, in the overall level of funding provided for the NLTP?
 - What should the sources of any additional funding be?
4. This document provides background information to aid your considerations.

Background on GPS

5. The GPS was a key recommendation from the "Next Steps in the Land Transport Sector" review in response to the identified issues of:
 - 5.1 gaps in the interpretation of the New Zealand Transport Strategy (NZTS) objectives;
 - 5.2 expenditure pressures that were not being addressed strategically; and
 - 5.3 inconsistent planning and funding policies distorting incentives within the sector.
6. The legislative framework for the GPS is provided in the Land Transport Management Amendment Bill .
7. The objectives of a GPS on land transport funding are :
 - To establish the government's overall priorities for the investment of land transport revenue over the next three to six years;

- To ensure clear direction is provided to the New Zealand Transport Agency (NZTA)¹ to guide its decision-making process in developing the National Land Transport Programme (NLTP) and approving funding for activities and combinations of activities;
 - To provide guidance to regional and local authorities on what the government wishes to achieve, how much funding is likely to be available for various activity classes and, potentially, the levels of financial assistance available;
 - To provide certainty about the levels of short-medium term expenditure for co-funding partners of transport activities and suppliers to the transport industry.
8. A further objective is to establish a regular process for reviewing funding policy and making strategic decisions, which is addressed by there being three-yearly reviews of the GPS.

What the GPS will do

9. The GPS will provide a link between the Update of the New Zealand Transport Strategy (UNZTS) and the NLTP. It will contain transport related targets consistent with those in the UNZTS relevant to the allocation of funding over a ten year period.
10. These targets will provide a clear signal to both the NZTA and Regional Land Transport Committees (RLTCs) on what type of activities or combinations of activities should be included in regional land transport programmes and the NLTP.
11. The GPS will also define the activity classes² that can be funded from land transport revenue.
12. The GPS will set the funding ranges that the NZTA can allocate to particular activity classes. This will ensure that a minimum level of service is maintained while also signalling any shifts in priority. This will also ensure that stakeholders have a clear indication of what levels of funding will be provided for different activity classes at a national level.
13. The GPS is also likely to outline any specific funding policy(s) that the government wants the NZTA to give effect to, for example the completion of existing commitments (regionally distributed 'R' funding policy, specific funding packages for specific regions as agreed through joint officials group 'JOG' processes, the State highway construction guarantee) and the implementation of financial assistance rate 'FAR' policy.

¹ The new Agency proposed to be established under the Land Transport Management Amendment Bill from the current Crown agencies Land Transport New Zealand and Transit New Zealand.

² Activity classes describe types of transport activity, such as maintenance of local roads and State highways, construction of local roads and State highways, passenger transport services and infrastructure, and road policing.

14. In outlining future funding levels and priorities, the GPS will provide a level of certainty for local government³ and enable the construction sector and transport service providers to develop and maintain capacity and capability.
15. The GPS may also provide signals on:
 - 15.1 what the achievement of value for money means in the context of the NLTP
 - 15.2 how the integration of land use planning and the development of transport networks can be encouraged
 - 15.3 expectations on the NZTA.

What the GPS will not do

16. The GPS will not:
 - 16.1 set the overall strategic direction for the sector. This will already have been established in other strategies/documents, such as the UNZTS and the New Zealand Energy Strategy.
 - 16.2 set transport outcome targets and funding allocations down to a regional level. These will be the responsibility of the NZTA, which will be guided by the GPS and which will also take Regional Land Transport Strategies into account.
 - 16.3 establish land transport regulatory policy. The government's regulation policy will be part of the consideration in developing the GPS rather than be part of the GPS itself.
17. The GPS cannot impose an obligation on the Agency to approve funding for a particular activity or combination of activities. This is a statutorily independent function of the NZTA which the GPS cannot over-ride.
18. The GPS cannot impose any obligation on regional or territorial authorities to fund their share of the land transport system.

The GPS in context

19. Figure 1 shows how the GPS fits into the planning and funding framework established by the *Next Steps* review. The Land Transport Management Amendment Bill anticipates that the NZTA will have to give effect to the GPS in developing the NLTP. This means that the allocations of funding to activities will need to be consistent with those specified in the GPS and that the NLTP, as a whole, will need to be contributing to the achievement of the transport targets specified in the GPS.
20. RLTCs will be guided by the GPS when developing Regional Land Transport Programmes that address the priorities established by the GPS.

³ Many land transport activities that are delivered by local government receive financial assistance from the NLTP to supplement local funding.

Development of the GPS

21. The Ministry of Transport has been tasked with helping the government develop the GPS. We are seeking your input to the development of the GPS.
22. The key issues we are seeking your input on relate to the linkages between the strategic outcomes that the UNZTS is identifying and the funding levels, priorities and allocations that the GPS will specify.
23. Our target release date for the GPS is 1 July 2008. This timing will allow regional and local authorities to be guided on the government's priorities and overall funding levels as they develop LTCCPs and regional land transport programmes.
24. The next sections of this document provide context for the key questions on which we are seeking your input.

Trends in land transport outcomes

25. The performance of the transport sector is comprehensively described in the UNZTS discussion paper *Sustainable Transport*. A copy of the paper is available at www.transport.govt.nz. This section highlights key trends and issues from that paper.
26. New Zealand is experiencing significant growth in land transport activity. For instance:
 - 26.1 total annual vehicle kilometres travelled (VKT) have increased approximately 30 percent since 1995
 - 26.2 heavy vehicle VKT has increased at a much faster rate, 64 percent since 1995
 - 26.3 public transport patronage is estimated to have increased by almost 50 percent since 1999/2000.
27. The growth in VKT can be explained by continued economic and population growth, urban sprawl, relatively low vehicle and fuel costs and the historic priority given to providing for road-based transport.
28. Recent growth in transport demand has not been uniformly spread across New Zealand. Growth in vehicle use for both freight and passenger purposes has been most notable in the triangle formed by Auckland, Hamilton and Tauranga, around 'coastal sunspots' such as Nelson, and in the metropolitan cities where economic and population growth has been concentrated .
29. Most transport for moving both people and freight within New Zealand is now road-based. The Ministry of Transport's household travel survey shows time spent travelling as a driver or passenger in a vehicle comprises 80 percent of total travel time. Freight studies suggest that road-based transport carries 66 percent of freight tonne kilometres.
30. New Zealand has one of the highest levels of per capita vehicle ownership in the world, with over 700 vehicles per 1000 people. The vehicle fleet is relatively old in comparison with other highly motorised countries, which means much of the fleet does not benefit from recent safety and emissions control technologies.

While the fuel economy of vehicles is improving, vehicle registration data shows that the average engine size has also increased, offsetting efficiency gains.

31. As a consequence of increased vehicle use, the side effects of our transport choices are becoming increasingly apparent:
 - 31.1 congestion in Auckland is occurring outside traditional peak periods, and is estimated to cost Auckland in excess of \$700 million per annum in lost productivity
 - 31.2 carbon dioxide (CO₂) emissions from land transport increased by 65 percent between 1990 and 2005 and are expected to increase a further 35 percent by 2030, in the absence of mitigating actions
 - 31.3 our transport patterns appear to be associated with more sedentary lifestyles, to the detriment of our health and fitness. Only 27 percent of today's children walk to school compared to 42 percent in 1990. There has been a decline in the time spent walking and cycling across all age groups over the past 20 years. Around 84 percent of trips to work are by car
 - 31.4 The first national study of the health impacts of vehicle emissions in New Zealand estimated that emissions contributed to the premature mortality of between 241 and 566 people in New Zealand annually. A follow-up study produced similar results for premature mortality and estimated the social cost of the negative impact of motor vehicle air pollution, including premature mortality, illness and restricted activity to be \$500 million annually.
32. While growth in transport activity was steady during the 1990s and early 2000s, there is evidence that the rate of growth in VKT, CO₂ emissions and congestion has slowed in the past three years. This may reflect the impact of higher fuel prices and more efficient vehicles, but without mitigating actions or further price constraints, considerable future growth is likely.
33. Although total public transport patronage has increased, the mode share of public transport is low compared with previous decades and New Zealand's major cities generally have lower patronage per capita than comparable Australian and North American cities.
34. Another key trend is the decline in the number of deaths and hospitalisations from road crashes. In 1990, road deaths were 729. By 2007 this had reduced significantly to just over 400. However, the downward trend in road deaths has slowed and hospitalisations have started to increase in the last few years.

Proposed government long-term strategic direction

35. In order to better respond to the trends described above, the government has requested an update to the current NZTS (the UNZTS). The purpose of the UNZTS is to establish the approach, targets and initiatives needed to achieve the government's vision for transport.
36. The government is still in the process of refining the UNZTS. While the long term and broad direction for the transport sector are unlikely to change, the details in the final UNZTS may differ from those in the discussion paper.

37. The UNZTS discussion paper proposes seven guiding concepts to help develop transport in New Zealand which provide a useful framework:
- 37.1 **End-to-end transport solutions** – Ensuring a strong focus on the end-to-end objective of moving people and moving freight safely and securely
 - 37.2 **Getting best value from transport assets** – Making the most of pre-existing transport assets, including transport corridors, and key transport nodes (including ports and airports) in the first instance
 - 37.3 **Integrating land use and transport planning** – Ensuring planning is carried out in an integrated way so that existing and new public investment is used efficiently
 - 37.4 **Non-transport solutions** – Looking for “non-transport” solutions such as improved urban planning and information technology solutions
 - 37.5 **New technologies** – Be willing to utilise new ideas and proven technologies to improve transport outcomes
 - 37.6 **a) User pays** – Under most circumstances, the transport tasks should be funded on the basis of user pays, including externalities

b) Subsidies – Decisions about long-term or start-up subsidies should be the result of conscious decision-making by government or local government
 - 37.7 **Effective education and advocacy** – changing the way we think about travel options for people and freight.

Proposed targets to support the long-term direction for the transport sector

38. The UNZTS discussion paper contains proposed targets for each of the five objectives that support the vision for transport:
- 38.1 Assisting economic development
 - 38.2 Assisting safety and personal security
 - 38.3 Improving access and mobility
 - 38.4 Protecting and promoting public health
 - 38.5 Ensuring environmental sustainability.
39. The following list of targets is taken from the discussion paper. The list contains some targets already agreed on by government as expressed in the New Zealand Energy and the New Zealand Energy Efficiency and Conservation strategies. Other targets may change as the UNZTS is finalised.

High-level outcome targets for 2040

- Halve per capita domestic greenhouse gas transport emissions
- Travel times by all modes will be predictable

- Travel times by principal routes to be improved relative to 2007 for identified critical intra and inter-regional connections, as determined with each region
- All individuals have access to the facilities and activities they need, such as work, education, medical care and shopping centres, to participate in society
- Public health effects of transport to be at accepted international standard
- Local environmental impacts of transport (including air and water quality) to be accepted international standard
- Operate to world best-practice safety standards for all modes of transport

Intermediate or detailed targets for 2040

- Become one of the first countries in the world to widely deploy electric vehicles
 - A biofuels sales obligation that will begin at a level of 0.53 percent from 2008, increasing to 3.4 percent of annual petrol and diesel sales by 2012
 - Reduce the kilometres travelled by single occupancy vehicles in major urban areas on weekdays by ten per cent per capita by 2015 compared to 2007
 - Identify and remove any barriers to the uptake of plug-in hybrid and full electric vehicles that meet appropriate safety standards
 - Effective real-time information systems in place to enable road users to plan their journeys to avoid congestion, minimising delay and fuel wastage, by 2015
 - Road deaths no more than 200 per annum
 - Lift coastal shipping's share of inter-regional freight to around 30 per cent (currently about 15 per cent of tonne-kilometres)
 - Lift rail's share of domestic freight to around 25 per cent (currently about 18 per cent of tonne-kilometres)
 - Increase the public transport mode share of peak hour travel (journeys to work) in Auckland, Wellington, and Christchurch from an average of nine percent to 20 percent and work with each region to optimise peak hour travel targets
 - At least double the overall public transport mode share to seven per cent of all passenger trips (currently about two to three per cent)
 - Manage noise to minimise any public health effects
 - No net loss of indigenous vegetation or fauna from infrastructure construction or maintenance
40. The GPS is one of a number of tools that will be used to implement the UNZTS. Because of its shorter time-frame the GPS will focus on shorter term targets that will act as milestones for the longer term targets in the UNZTS, and will describe how government investment in transport is expected to assist in achieving these targets.

41. Progress against the targets will be measured so that subsequent GPSs (along with other tools and interventions) can be adjusted to ensure targets and interim milestones are being met.

Achieving the UNZTS targets

42. The focus now is to develop an approach to achieve the UNZTS targets.
43. A central issue in devising an approach to achieve the UNZTS targets is the general desire for people to travel by car and for goods to be moved by road. These are often the preferred modes of people and businesses because they tend to be the most convenient and flexible options.
44. The roading network, therefore, will continue to play a primary role in the provision of transport solutions. This view is reinforced when considering the New Zealand Energy Strategy. The role of electric cars in the Energy Strategy's scenario for a low carbon future reflects the likely continued importance of private cars as the primary means of transporting people. While the Energy Strategy anticipates the development of alternative modes, high demand for road space is likely to continue.
45. Public transport also needs to be developed, in order to help manage congestion in urban areas, reduce emissions, and provide improved accessibility for those in society who do not have access to private vehicles.
46. Importantly, it is now widely recognised in New Zealand and elsewhere that management of demand for transport services, and improving the way the transport system is used, also have a vital role to play in transport planning. Examples include:
 - **promoting alternative choices** - for instance through school and community travel planning initiatives, such as walking school buses, that encourage use of healthy and sustainable modes
 - **network management** – for instance using traffic signalling systems to maintain orderly flows , and provision of priority lanes for buses and other multi-occupancy vehicles on congested sections of networks
 - **regulation and enforcement** – for instance ensuring vehicles are maintained properly so that their safety and emissions systems continue to perform effectively
 - **accessibility improvements** – remodelling streetscapes to make walking and cycling, and use of public transport attractive options
 - **pricing signals** – through, for instance parking charges, carbon charges and, in the future, charging more for using congested urban roads at peak times than at off-peak times
 - **integrated planning of infrastructure development** – for instance through co-ordinating transport and land use development strategies, and ensuring good connectivity between modes.

47. An approach that blends demand management, improved use of existing transport networks, and integrated planning of infrastructure development is most likely to lead to an affordable, integrated, safe, responsive and sustainable transport system. In particular it will enable congestion to be kept to manageable levels, curtail the growth in vehicle kilometres travelled, and facilitate sustainable development.
48. This “balanced” approach is supported by overseas experience, empirical evidence in New Zealand, and the weight of professional opinion in the feedback we have received on *Sustainable Transport*. It is therefore likely that the final UNZTS will support this approach.

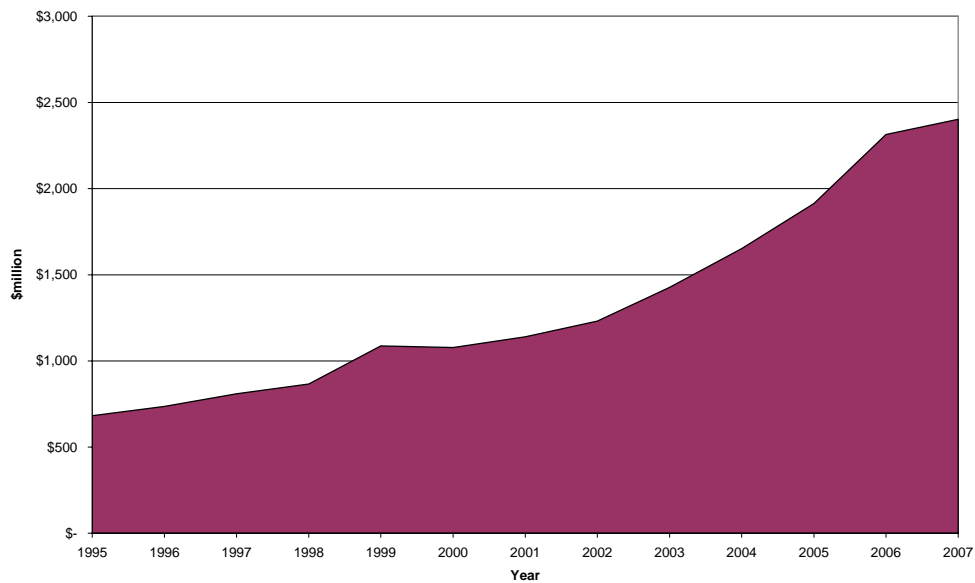
Linking the UNZTS strategic approach to NLTP funding

49. Implementing this approach will require a range of measures, including: regulation and enforcement; awareness raising and education; economic instruments; and infrastructure and service provision. Funding is one tool for achieving these measures, with the GPS being the instrument for directing that funding.
50. In developing the GPS, there will be two related decisions with respect to funding allocation. The first is the overall level of funding; the second is the allocation of that funding across activities. We look at each of these in turn.

Overall level of funding

51. Central government’s land transport investment is primarily made through the NLTP.
52. As shown in Figure 2, total NLTP investment has increased from around \$830 million in 1995/96 to \$2.4 billion in 2007/08. Recent NLTP investment has primarily focused on relieving congestion in metropolitan cities through both roading and passenger transport initiatives and improving the safety of the roading network. The increase in investment over the last 12 years has seen a large expansion in funding for State highway activities, as well as major increases for passenger transport. New activity classes to place greater emphasis on regional development, walking and cycling, and travel demand management have also been introduced.

Figure 2: NLTP investment: 1995-2007



Source: Land Transport NZ annual reports and NLTP. Note: 1995 – 1998 figures do not include road police spending, 2007 figures are estimates, and the figures exclude Auckland rail development funded from Vote Finance

53. The NLTP is funded from the National Land Transport Fund (NLTF). The majority of NLTF revenue comes from road users, through a portion of fuel excise duty (FED), a weight and distance charge on diesel and heavy vehicles (Road User Charges), and motor vehicle registration and licensing fees. In recent years the Crown has provided additional funding from general taxation, either in the form of top-ups or appropriations for specific regional needs.
54. From 1 July 2008 the government intends to implement full hypothecation of FED to the NLTF. This means that all revenue raised from FED will be used for land transport purposes. The expectation is that from 1 July 2009 the NLTP will be funded almost fully from FED, road user charges (RUC) and motor vehicle licensing fees. In other words, funding for the transport system is provided by transport system users.
55. Revenue forecasts are based on assumptions of economic activity, inflation and oil prices, all of which are difficult to predict accurately and will impact on the level of revenue received. The total level of revenue forecast in the 2007/08 NLTP rises from \$2.4 billion in 2007/08 to \$3.3 billion in 2016/17.
56. The level of RUC revenue is largely dependent on the distance travelled by freight trucks, which is linked to the level of economic activity. The level of fuel excise duty is dependent on petrol consumption. Petrol consumption is influenced by the costs of vehicle ownership and by the price of petrol, which are linked to both crude oil prices and the New Zealand exchange rate.
57. Climate change and sustainability initiatives are seeking to reduce petrol consumption through more efficient vehicles, alternative fuels and mode-shifting towards low-carbon transport modes. While reducing petrol consumption will be beneficial, it will also reduce revenue from petrol excise duty.

58. There are a number of additional funding tools available. The Land Transport Management Act 2003 introduced the ability to put in place toll schemes for funding new land transport infrastructure and use private sector financing and expertise to develop large-scale projects. The first tolling project, ALPURT B2, is expected to be open early 2009.
59. In February this year the government announced the establishment of a Steering Group to investigate the feasibility of progressing the largest proposed roading project in New Zealand, known as the Waterview Connection, as a public private partnership (PPP). The Steering Group is expected to advise on whether procuring the Waterview Connection as a PPP is viable and could deliver value for money. The investigation is expected to be completed by the end of June 2008.
60. Land transport activities that are delivered by local government are part funded from the NLTP according to the relevant financial assistance rate (FAR). The "local share" is derived from rates, development contributions, borrowing, and other investments.
61. The Land Transport Management Amendment Bill proposes allowing regions to levy regional fuel taxes to bring forward capital projects that have been prioritised by the region.
62. Notwithstanding these additional sources of transport revenue, the primary funding mechanisms for the NLTP are FED and RUC. A 1 cent per litre increase in FED, with equivalent adjustments to RUC, raises approximately \$40 million per year - about 1.5% of current revenue.

Allocation of funding

63. The GPS will set an overall level of NLTP expenditure. It will also set funding ranges for activity classes in the NLTP and outline the transport targets that the allocation of funding will aim to achieve.
64. In considering the targets in *Sustainable Transport*, short term transport targets within the GPS could focus, amongst other factors, on fostering growth in public transport use, reduction in single occupancy vehicle travel, and encouraging walking and cycling.
65. There are other areas where we first need to gain a better understanding of what the appropriate and measurable targets might be, before funding can be applied in order to achieve the government's desired outcomes. One example is freight movements within New Zealand and between New Zealand and overseas markets. This is being addressed by a comprehensive freight study, already underway. That study is expected to inform future directions and policy in successive Updates of the NZTS and GPS.
66. Another example where further work is being undertaken is around improving travel time predictability, and improving travel times on identified critical connections. The UNZTS anticipates that critical connections will be identified jointly by central and regional government. This work will not have been completed by the time the GPS is released, which may limit the ability to set targets within the GPS.

67. Funding interventions may also be more effective if accompanied by complementary interventions, in areas like regulation and enforcement, and awareness raising and education. Though the GPS will not define regulatory frameworks, it can signal where regulatory intervention can be effective.
68. The GPS will define the activity classes that can be funded from the NLTP and the funding ranges for these activity classes. Activity classes describe types of transport activity, such as maintenance of local roads and State highways, construction of local roads and State highways, passenger transport services and infrastructure, and road policing.
69. In setting out the funding ranges for activity classes, the GPS will need to take account of certain elements of the transport system:
 - 69.1 Maintaining the roading system, both State highways and local roads, to an appropriate level of service is essential for the good performance of our transport networks. Road maintenance currently consumes over 20 percent of total NLTP allocations. Maintenance costs have risen in recent years as labour costs and bitumen prices (driven by oil prices) have risen. We anticipate maintenance costs will continue to be a significant part of NLTP allocations.
 - 69.2 Equally important is the repair of the roading network after storms or floods. The cost of this activity has increased in recent years, reflecting an increase in the frequency and severity of such events. Though future occurrences are unpredictable, it is important to make adequate provision so that the networks can be restored promptly.
 - 69.3 Maintaining public transport services is taking an increasing share of the NLTP reflecting expansions in services, along with increased labour and operating costs.
 - 69.4 The current institutional arrangements mean that passenger rail infrastructure development in Auckland and the national rail network are funded outside of the NLTP.
 - 69.5 A further significant part of the NLTP, over ten percent, is for the road policing programme. In order to maintain the focus on road safety, it will be necessary to ensure the police are adequately funded.
 - 69.6 The NLTP in the immediate future is also constrained by past funding decisions on large multi-year projects. At any time there is at least \$1 billion of committed funding stretching ahead for many years.
 - 69.7 Even more pertinently, transport plans take many years to come to fruition. Decisions made today reflect plans that have developed over ten or more years. Even though strategies and objectives may have shifted over that period, it is not sensible to ignore this past work.
70. As a consequence of these factors, there are limited amounts of discretionary funds within the NLTP and shifts in funding priorities will be gradual.

71. It is also the case that there is unlikely to be the funding to address all issues identified in the UNZTS to the full extent possible in the short term. We will need to make decisions about the speed and sequencing of improvements and the areas in which we can make the most improvements in the short term.
72. The challenge for the GPS, and an area where we would appreciate feedback, is deciding whether the current funding allocations (as set out in the 2007/08 NLTP) will help us achieve the desired balance of transport activities. If more funding in some areas is required, we will need to consider the trade-offs and implications of less funding in other areas.

Key questions:

- *How can funding best support achievement of the UNZTS targets?*
- *Are there transport activities which, in the next three to ten years, should receive more funding so as to make quicker progress towards UNZTS targets?*
- *What trade-offs can be made in the allocation of funds?*
- *Are there areas where less funding should be allocated?*
- *What changes should there be, if any, in the overall level of funding provided for the NLTP?*
- *What should the sources of any additional funding be?*

Please send your feedback to gps@transport.govt.nz, or post to:

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by **Thursday 24 April 2008**. We appreciate your input.