

National State Highway Strategy

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ABSTRACT

The recently released National State Highway Strategy for Transit New Zealand looks 30 years into the future. It sets out how Transit expects to move towards and manage the state highway system as an integral part of a multi-modal land transport system. It identifies how Transit will support economic transformation, improve access and mobility and help build a safe, secure and healthy New Zealand. The strategy provides a platform for achieving a state highway network that is environmentally sustainable. This is then translated into identified concepts for urban areas and regions describing where and how Transit will spend state highway funding.

1. INTRODUCTION

Regional land transport strategies tend to focus on urban areas and to some extent the surrounding hinterland. While these strategies are effective in looking at urban areas there has been no comprehensive approach that addresses the connections between these urban areas. The National State Highway Strategy (NSHS) was designed to address this gap and provide a comprehensive approach to developing the form of the future intercity network that has not been addressed by any other organisation.

Transit New Zealand (Transit) has developed the NSHS to provide high level, forward looking, long-term direction for its operation, which reflects the New Zealand Transport Strategy (NZTS) and The Land Transport Management Act (LTMA). The NSHS identifies how Transit will support economic development by improving access and mobility across the entire country, and how we will contribute to improved safety, security, and health and provides a platform for achieving a state highway network that is environmentally sustainable.

Transit has found itself reengineering its approach to state highway management as a result of the NZTS and LTMA. The Act aligns Transit and its partners with the government thinking, which is one of an integrated and sustainable approach to its operation. While safety and cost continue to be high priorities, social and environmental responsibilities are important considerations in assessing transport solutions. Transit is required to take a more holistic approach in addressing transportation issues.

The NSHS contains a number of approaches to achieve this direction such as the adoption of eight principles of management and development of the state highway; the use of a categorisation system to ensure appropriate planning and management of state highways.

These changes recognise the need for a more sustainable approach to transport as set out in the NZTS. The NSHS identifies the effects of fuel price increase, growing certainty of climate change; increasing freight movements, disruption to communities caused by congestion and the adverse environmental and human health impacts of air, water and noise pollution.

2. INTEGRATED PLANNING

Transit will develop the state highway network to balance and support the contribution made by other modes of transport be they sea, air or rail based. The aim is to develop the state highway network in a way that supports land use development and growth strategies for each region.

The state highway network is a key part of New Zealand's transport system and it is necessary that each part of the whole system should be integrated in order to create an efficient mix of transport modes for any given pattern of land use. This is why the planning and management of state highways will be integrated with the parallel planning and management of local roads, rail and sea, and wider land use planning.

3. PARTNERSHIPS

To achieve integration, collaboration and co-operation between stakeholders will be necessary. Transit has entered into many partnerships across the country with regional and territorial authorities as well as national organisations. It is essential that all those involved in transport work together to achieve a well-integrated transport system for New Zealand. Transit will work together with our partners to achieve this collaboration.

Transit will seek early engagement with planning and transport authorities when developing such plans as district plans, regional land transport strategies and with developers. This early contact will allow us to collaboratively address the impacts of land use planning and development on state highways and reduce tensions between roads and other land uses, preferably by avoiding adverse impacts of development and roading proposals, or by mitigation.

Through this early contact Transit will seek to ensure sensitive development such as housing, is not permitted excessively close to state highways where future residents may be exposed to unavoidable effects of the road, such as traffic noise and vibration.

Transit will also seek to collaborate and co-operate with local stakeholders at an early stage in network development to mitigate the environmental effects of managing and developing state highways.

4. FUNDING AND AFFORDABILITY

Land Transport New Zealand provides Transit with a budget of over one billion dollars a year. When you realise that 35 percent of that is spent on maintenance and that some of the major projects are well in excess of that figure you realise that a billion dollars does not go far. Affordability is a concept that governs how Transit operates. We need to consider whole of life costs in maintaining and developing state highways. We also need to identify more clearly the social and environmental costs in an equitable way with construction costs.

Transit is taking a three level approach for available funding. The first priority is maintenance and improving what we have. This includes addressing safety and infrastructure bottlenecks through means such as shape corrections to State Highway's, median separation and improved messaging signs. Secondly funding for improvements to network performance through the use of travel demand management measures. This includes providing bus or high occupancy vehicle lanes, ramp metering, education including travel plans and other measures to get more out of the existing infrastructure. Thirdly for improving infrastructure to accommodate planned growth. This includes the provision of passing lanes, four laning roads and establishing bypasses as well as establishing new state highway sections. It is important that there is a balance of these three priorities to achieve value for money. Transits development and works program is outlined in the State Highway Forecast that is produced annually with major reviews every 3 years.

5. STATE HIGHWAY CATEGORIES

Not all state highways are the same and they need to be managed and treated differently. To aid integration between land use and transport and between modes Transit will use categorisation of state highways as a planning and management tool. We aim to match the function of a state highway with the environment it passes through. Categorisation is a mechanism for efficient and effective planning of the state highway network. It identifies critical routes that are essential to encourage national economic viability and the need to reflect this in roading standards. It also identifies state highway routes that are important from a regional or sub regional basis where some flexibility in standards may be warranted to serve regional needs.

We have categorised our state highways into three broad functions:

National – state highways that connect places of national significance – major cities of over 30,000 people, international airports and major ports. These highways facilitate long distance inter-regional movements of people, goods and services.

Regional – state highways that connect territorial regions or places of regional significance as well as key tourist destinations, and

Sub regional - state highways that connect territorial districts and places of district significance as well as tourist destinations and primary production areas.

In combination with the functional categorisation the environment will also be considered by Transit when planning and managing each state highway in terms of urban, peri-urban and rural areas.

6. PRINCIPLES

Transit has developed eight principles to guide the planning, building, operating and maintaining of state highways. Each principle contains aims that collectively address a state highway network that is safe, efficient and affordable. They cover how Transit intends to implement its responsibilities under the legislation.

The principles are:

- Safety
- Operating the network
- Asset management
- Environment and communities
- Integrated planning
- Education
- Continual improvement

The detail of the implementing the principles is contained in documents such as Transit's State Highway Safety Plan, Planning Policy Manual, State Highway Geometric Design Manual, Environmental Plan and State Highway Management System Manual.

7. CONCEPTS

Transit will maintain and develop urban and rural state highways so that they carry intra-urban, strategic, inter-urban and freight traffic safely to support sustainable growth and actively seek to manage traffic volumes. The NSHS contains concept maps of how we see the network developing over the next 30 years. In developing these concepts we have taken account of Government policies and strategies as well as regional strategies and priorities. While the concepts are a broad tool Transit proposes to be much more sophisticated in identifying when and where it applies capacity increasing measures such as passing areas and four laning.

Multiple-lane standards are expected to apply to state highways north and south of Auckland, north and east of Tauranga, north of Wellington and in the immediate vicinity of Christchurch. The precise design standards and whether or not these state highways should be expressways or motorways will be determined through more detailed studies.

The balance of the national state highway network and the regional state highway network is expected to largely remain two-lane with passing lanes. Transit will introduce slow vehicle lanes in line with its passing and overtaking strategy. We expect that capacity improvements will not generally be required on rural sub-regional state highways.

A passing and overtaking strategy has been developed based on passing demand and is an integral part of the 30-year concept for rural areas. The strategy proposes a cost effective means of addressing passing demand by identifying passing infrastructure locations and design that is efficient in addressing passing needs.

7.1 RURAL AND URBAN CONCEPTS

The NSHS identifies regional and urban concepts for some of the main centres. While not all concepts are at the same stage of development, they provide Transit's general approach to future state highway development.

8. IMPLEMENTATION

Transit will implement the Strategy and its concepts through our key plans and policies, such as the passing and overtaking policy, walking and cycling policy, environment plan and the planning policy manual (PPM) that will be reviewed to align them with the Strategy. These plans and policies contain the detail of how the NSHS is to be implemented. For example the PPM addresses land use access design and spacing and relates this back to different standards based on the categorisation of state highways in the NSHS. The passing and overtaking policy relates passing demand back to passing demand identified in the 30-year concept plan in the NSHS. These in turn will be the guide for a regional passing lane strategy that will identify specific locations for passing lanes. These and further plans, and policies developed over time will guide the development of regional plans and network plans. Strategic studies and proposals for funding contained within our State Highway forecast are now required to be consistent with the NSHS. The State Highway Forecast then feeds into Land Transport New Zealand's National Land Transport Plan.

9. CONCLUSION

The NSHS articulates Transit's response to delivering the NZTS as it relates to the development of the country's state highway network. The Strategy takes a long-term holistic approach. It provides high-level guidance to Transit, other Government Agencies, local and regional authorities and the community and will assist in integrating state highways with other transportation modes, and local and regional plans.

The Strategy presents a categorisation system to address state highway function. It identifies a 30-year concept for capacity improvements that allocates limited resources in an efficient manner.

It provides overarching principles, which are articulated in Transit's operational documents and direction to manage the state highway system in a comprehensive manner