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Report to the Regional Land Transport Committee
By Nick Sargent, Senior Transport Planner, Transport Policy

Travel Demand Management

1. Purpose

To provide the Committee with information on Travel Demand Management projects being conducted by the Transport Policy Department.

2. Background

The consultation phase of the Regional Land Transport Strategy (RLTS) highlighted the need to pay more attention to measures which change the way people choose to travel (demand management) rather than building more infrastructure, particularly roads, to cater for growing demand for travel (adding supply). This was expressed by sentiments such as “make better use of the transport facilities we have before building more roads” and “building more roads should be the last response, not the first.”

The references which encompass Travel Demand Management (TDM) within the RLTS are outlined below for information:

Objectives 2 & 3 : Economic Efficiency And Affordability

Economic Efficiency

To implement the most cost effective options.

To ensure that all users of land transport are subject to pricing and non pricing incentives and signals which promote decisions and behaviours that are, as far as possible, in accordance with efficient use of resources and the optimal benefit to the user.

Affordability

To plan for a land transport system that recognises funding constraints and ability to pay.

Theme 2.2 : Contain The Growth Of Commuter Road Traffic¹

The policies in this strategic theme are aimed at influencing peak hour road traffic demand, to ensure the efficient use of the total strategic transport network.

The major urban centres are the areas of greatest concern when attempting to manage congestion. Consequently commuter traffic management policies are targeted at the major urban city centres. The policies are also a total package, all need to be implemented to achieve the desired outcome.

2.2.4 Promote supporting measures which will help reduce peak road demand

These measures include promotion of glide time, tele-commuting, cycling and higher vehicle occupancy. Increased public education about the true costs of car travel will also be beneficial. Government will be encouraged to remove fringe benefit tax on employer subsidised bus and train fares.

Objective 5 : Sustainability

To provide a land transport system that operates in a manner that recognises the needs of the community; avoids, remedies or mitigates adverse effects; uses resources in an efficient way; and supports an optimal demand for energy.

Theme 5.1 : Minimise The Impact Of Transport On The Environment²

The continuing strong growth in demand for personal mobility within the Wellington Region, as in the rest of New Zealand, means that the impact of road transport on the environment will continue to grow. The Regional Policy Statement also provides a policy framework for measuring the environmental impact of transportation.

These policies aim to mitigate the impact of transport on the environment through encouraging environmentally friendly transport technology, walking and cycling.

5.1.1 Promote Environmentally Benign Transport Mechanisms³

The transport industry accounts for 35 to 40% of New Zealand's carbon dioxide emissions. Transport activities also produce significant quantities of nitrogen oxides, carbon monoxide, volatile organic compounds, hydrocarbons, lead, carbon and particulate matter.....

The responsibility for carbon dioxide emissions is global and a national level policy issue. Carbon monoxide, however, is an issue that can be addressed at a regional or local level.

There are several mechanisms available to address the issue of impact on the environment. They [can include]:

- *reduce congestion where it occurs – reducing exhaust emissions from idling vehicles*

¹ [Regional Policy Statement, Built Environment and Transport Chapter, Policy 4, Method 3](#)

² [Regional Policy Statement, Built Environment and Transport Chapter, Policy 4, Method 4](#)

³ [Regional Policy Statement, Energy Chapter, Policy 5, Method 4](#)

- *ensure that private cars, where they are used, are used efficiently eg. Carpooling*
- *encourage the use of public transport and slow mode, including walking and cycling*

The Regional Land Transport Strategy (RLTS) has recognised that there are limited opportunities for further road development and proposes a package of proposals and inter-related projects.

The objectives of this package include Accessibility and economic development, Economic efficiency, Affordability, Safety, and Sustainability. The results of the US studies suggest very high potential gains against the targets in most of these areas.

The Strategy proposes public transport improvements, improved modal transfer options, land use policies, walking and cycling alternatives, containing the growth of demand (including TDM approaches) and a number of other measures. Trip elimination strategies such as the use of telecentres, working from home, and remote service delivery are included in the TDM approaches (Theme 2.2.4). The Strategy bases its plans around a set of specific corridors and routes, reflecting the linear structure of the region.

3. **What Is TDM And Why Use It?**

Traffic Demand Management (TDM) is a term applied to a broad range of techniques, including management of existing road space (supply management), which have been developed over the past five to ten years that seek to reduce traffic demand and the adverse impacts of travel.

TDM is about modifying existing levels and current growth trends of total travel, travel characteristics, and energy consumption through changing demands, and/or by changing “supply” or travel network capacity. Changes to either demand or supply can be targeted towards one or a combination of components including time of day, type of user, location, mode of travel, frequency, route, or cost.

Concerns over greenhouse gas emissions, the rate of consumption of fossil fuels, health and pollution issues, and the desire to reduce government spending on infrastructure programmes have also generated interest in alternative methods of catering for increases in travel demand, in reducing travel demand, or in reducing its rate of growth.

Interest in TDM principles has arisen for several reasons:

- Recognition of the adverse environmental impacts of travel.
- Recognition that “we can’t build ourselves out of traffic congestion”.
- Need to make more efficient use of the existing network.
- Inequities in access to mobility with car-based urban development or urban form.

The above issues can be influenced by addressing:

- Travel choice / behaviour (when people travel).
- Modal choice (how people travel).
- Urban structure (where people travel).
- Behavioural patterns (why people travel).

3.1 **A Definition of TDM**

TDM is a loose term as indicated by the range of coverage of various definitions. It has wide-ranging definitions in Europe and Australia, but often fairly narrow ones in the US. Literature from particular countries needs to be considered in the relevant context.

Given that TDM actions are not constrained to “demand” modification, but also include “supply” and “pricing” actions, and the need to keep TDM defined broadly, a useful definition is:

“Travel Demand Management is intervention (excluding provision of major infrastructure) to modify travel decisions so that more desirable transport, social, economic and/or environmental objectives can be achieved, and the adverse impacts of travel can be reduced”.

Such a definition covers the likely effects of currently proposed or implemented TDM actions, and opens up other potential TDM actions.

4. **Resources Available**

When the current annual plan was prepared, a small provision was made for publicity and promotion within the budgets of the Transport Policy Department. It was expected that the Wellington Regional Council would be involved in providing promotional materials for TDM activities. It however became apparent that some ground work for the promotion of TDM projects was required beforehand. It was considered appropriate to use the promotions budget in that manner in the current financial year. To supplement the resources available a successful application has been made to Transfund New Zealand for funding from the Alternative To Roding (investigations) budget for financial years 99/00 and 00/01.

5. **Discussion**

There has been an increasing emphasis on the adoption of TDM measures in other regions of New Zealand. An outcome of the RLTS process was to realise that more effort could be concentrated in this area. If this does not occur, the need for expensive and disruptive major infrastructure projects may take place earlier than otherwise necessary.

To be effective, in the long run, these measures will need to be properly resourced. Because the measures are aimed at changing behaviour, the resources will tend to be used to support trials of new initiatives, promotional activities, developing and implementing regulation and some relatively minor physical works. The resources required are considerably less than for major infrastructure and generally involve human rather than physical resources. The resource level required to make a difference will however be considerably greater than currently used in this area. The roles of various organisations in implementing TDM measures will also need to be considered.

Potential TDM measures include passenger transport improvements and road pricing for congestion management. As passenger transport is dealt with in the Further

Regional Passenger Transport Policies section of the RLTS and road pricing is the subject of a separate study, these are excluded from consideration.

6. **Progressing TDM In The Wellington Region**

... Three areas have been identified for immediate action within the Wellington Region.

- (1) Telework in Wellington – An investigation project (**Attachment 1**)
- (2) Carpooling in New Zealand – Implementing Rideshare in Wellington. (**Attachment 2**)
- (3) Development of a Pedestrian Strategy – enhancing the walk mode (**Attachment 3**)

Once the work on telework, carpooling and walking has been developed to make these options attractive and convenient alternatives, the next logical step is to develop an individualised marketing programme. Such a programme would be similar to the “Travel Smart” programme developed in Western Australia. In addition some promotional material outlining the environmental costs of car use would also be disseminated to the public and made available to schools.

7. **Communication**

As discussed above, TDM measures tend to be aimed at changing behaviour through the support and promotion of new initiatives. Integrated publicity and promotion is therefore essential to their success. The TDM projects have been scoped to include these matters and are discussed further in the respective attachments.

8. **Recommendations**

That the report be received.

Report prepared by:

Approved for submission by:

NICK SARGENT
Senior Transport Planner, Transport Policy

TONY BRENNAND
Manager, Transport Policy

DAVE WATSON
Divisional Manager, Transport

Attachments : 3