

**¹LOW VOLUME ROADS SYMPOSIUM
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REGIONAL DEVELOPMENT FUNDING

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Brief CV

John has broad experience in the maintenance and construction of low volume roads gained during his employment with local government and lately with MWH on the East Coast. The East Coast region has large forestry plantations, a developing roading network and relatively high unemployment. Effective harvesting of the forests from remote areas, over roads with inadequate geometry and foundations is the key to providing job opportunities, increasing skills levels and developing some disadvantaged regions in New Zealand.

During his 35 years involved in roading within the East Coast region, John has gained considerable experience with the maintenance and construction of rural roading networks. He has been instrumental in assisting in the development of many roads (State Highways and Local Roads) that have resulted in an improved internal network and increased access to the East Coast from outside the region.

Synopsis

This paper for presentation at the Low Volume Roads Workshop discusses the reason why the Government has made regional development funding available, what the funds are to be used for, what the benefits are to the regions receiving the assistance and the effects to other communities and roading networks if funds were not available.

The paper examines:

- Overview of what Regional Development Funding is and how it is to be used.
- A look at the differences between two adjoining regions where funding has been made available and the other that is seeking assistance.
- Discusses what are the effects on this region and others faced with similar increases in forestry traffic if funds are not made available.

The Government has provided funding to specific regions in New Zealand with high rates of unemployment to assist with the development of industries that will provide jobs for its people. Regions identified for funding assistance are the Far North and the East Coast of the North Island. As well as limited employment opportunities these regions have large volumes of timber that are ready for milling and an under developed roading infrastructure that is not able to transport timber out of the forests. Efficient transport of the timber for processing by the workforce that is available is a key to reducing unemployment and assisting with the development of two regions with many natural resources.

Introduction

1. Regional Development Funding

The first part of the presentation describes the reason why the Government has made the funds available, what communities will benefit, how the funds can be used and how they are applied for. It will also discuss the amount of funds being allocated and the effects on the low volume rural roads resulting from the increased loading and volumes of logging traffic.

2. The East Coast Experience

Examples of roads being improved in the Hawke's Bay area will be discussed. One TLA (Wairoa) has full regional development funding available and the other (Hastings) has applied for increased subsidy. Illustrations will be given of how the funds were used to improve roads in two areas that were previously unsuitable for their new role.

3. Effects of Funding on other Regions

The effect on other regions where special assistance was not made available, whether or not they can provide their local share of money and the influence of the special funds on the design standards will be defined.

This paper will also discuss what forestry companies would have done if the roads improved had have been their own and what other TLA's could do if faced with similar traffic and no extra funding assistance.

1. Regional Development Funding

Determination of Need for Assistance

The Government set up an Industry Task Force (ITF) over 10 years ago when it became very obvious there were many forests maturing in areas with inadequate roading infrastructure to transport logs. The group identified the link between the abundant availability of timber in remote areas and high unemployment rates in the same regions. They could see the potential of overcoming the disadvantages for the benefit of a particular region. The ITF was made up with representation from local industry, TLA (District & Regional), Port Companies, Transport Operators, various Government Departments, Forest Owners, etc.

The Minister of Regional Development also had an interest in pursuing additional funding for the poorer regions as part of his social responsibility to link the excess timber availability with unemployment.

What is the Regional Development Funding to be used for?

Two regions in New Zealand have been identified by the Government as requiring financial support to initiate regional development and increase employment opportunities. The Northland and East coast regions have large timber plantations located in very remote areas and gaining access to the forests was seen as a way of encouraging regional development.

The funding assistance from the Government is to support many initiatives but specifically to help make the improvements necessary to the roads as well as to encourage new industries to be established to process the timber. Employment opportunities will increase in both the transportation and roading construction sector as well as the processing sector where factories will be required and manufacturing skills developed. The support services required for both sectors will provide opportunities for associated trade's people within the Community.

The two regions have labour available but many do not have the necessary skills so extensive training will need to be undertaken.

Who will benefit?

In addition to people with little hope of employment, the rest of the community will benefit as new industries develop and opportunities are provided. Many young people leave these regions to seek education and skills training in other areas. The regional development funds will retain people and also encourage the return of the people who have moved out. Communities with negative growth will prosper again and pride will be generated.

Regions to Benefit

Regional Development Funding to assist the forestry and support industries has been assigned by the government to two regions in New Zealand being the Northland and East Coast areas of the North Island. Sectors within both regions have unemployment rates greater than the national average, low skill levels, high crime rates and communities with negative growth. The funds will be used to improve roading access to and from the forest for the increase in traffic generated by harvesting and for the transportation of logs. Currently many of the roads carry few vehicles, are not much better than single lane tracks, and are founded on very low strength soils and in areas of unstable geology. In many cases trees had been planted in remote areas as a method of soil conservation with no long term plans to harvest them. The trees are now maturing and without the support from the Government they may have been left to rot. Harvesting of the forest will generate greater than 200 vehicles p/day with a large percentage of traffic being trucks loaded to the full weight allowable. Extensive reconstruction of the roads is required to cope with the increase in traffic volumes and loadings.

Funding Criteria

Under Transfund NZ's regional development output group priority regions have been notified by the Minister of Transport. The two regions chosen for funding assistance generally have been TLA's with a small rating base and no ability to find additional funds for roading improvements. Subsidy for improvements is normally available from Transfund NZ providing the project meets prescribed economic benefit criteria. The two regions chosen for assistance are not able to provide their local share for the improvements so do not apply for the inclusion of the improvements within their allowable District Roding Programme. The Regional Development Funds are 100% subsidised however the RCA's are not permitted to use regional development funding to reduce their contribution to their expected subsidised roading programme.

Transfund NZ applied the following trending priorities when making its decision to approve funds. The funds are required to:

- Provide, or improve, access in such a way as to encourage direct additional investment in the region.
- Significantly reduces travel costs to the industry i.e. make meaningful contribution to reducing the cost of the product.
- Mitigate adverse effects on safety, environment and amenity including conflicts with tourist traffic and/or reduces travel costs.

What funds are available?

Regional Development Funding was first made available in February 2002 with an allocation of \$26.7 million (excl. GST) for the 16 months to end of June 2003.

A further \$20 million (excl. GST) per year is to be provided for the following financial years.

These funds are solely for roading improvements and additional funds are also available for:

- Skills training: drivers, harvesters, mill workers, timber manufacturers (i.e. furniture, timber)
- Marketing of new timber products,
- Assistance to establishment of new mills and factories:
 - purchase new plants,
 - establish new industries,
 - research

The primarily use of the funds is to provide a positive economic return to the region with agreement of the key stakeholders including Road Controlling Authorities, Regional Councils, Regional Land Transport Committee and Industry representatives. The basic criteria is to provide employment for processing of the timber within the region. Direct export of logs over the wharf to be processed off shore will not qualify for RD funding assistance.

2. *The East Coast Experience (particularly Wairoa and Hastings)*

Overview

This section will cover funding issues and roading improvements in two specific Districts on the East Coast. Wairoa District Council is within the Tairāwhiti Region where full funding assistance has been provided and Hastings District Council to the south which does not have full subsidy even though it has roads being used to cart logs grown in the Wairoa area.

(Map showing Willowflat, Pohurakura, Putere, and Tunanui)



Wairoa District Council

Willowflat Road

Willowflat Road already carried significant volumes of logging traffic and residents and school bus operators had expressed worry that any increase in traffic would make the road dangerous for road users.

Sections of the road were narrow and had very limited sight distances. The pavement was unsealed but in reasonable conditions, however the extra volumes of loggers would soon have exposed the road inadequacies.

Opus were appointed by the Wairoa District Council to provide professional services including the survey and design of the road, preparation of the contract documents and contract manager the physical work contract that was awarded to Quality Roading Services. (The WDC LATE)

The road will be sealed 6 metres width over much of the 20km length with some parts on faster alignments sealed 7 metres. Some sections were already sealed to 5 metres so extra seal widening was required at various locations.

Putere Road

Putere Road Construction is 17 km long and includes 7km of existing seal that needed to be widened from 6m to 7m. The remainder was unsealed with a pavement width ranging from 5 to 7 metres that required widening, improvement to geometry, pavement construction and sealing.

The road was very narrow, had poor sight distances and weak pavement. The road carried very little logging traffic previously with its predominant use being for pastoral farming.

MWH were appointed by the Wairoa District Council to provide professional services including the survey and design of the road, preparation of the contract documents and the contract management for the physical works contract awarded to Russell Roads Ltd (a Hastings based company).

Predicted logging traffic volumes over the next 20 years average 30 truck loads per day with a peak of 60 trucks in approximately 10 years time.

Pavement testing to design the new road included CBRs of sub grade, Benkelman Beam testing and cement / lime stabilisation response tests.

The pavement design chosen was for a 200mm thickness stabilised layer made up of 100mm imported river gravel and 100mm existing pavement. 100mm crushed base course was added prior to the application of a 2 chip grade 3 and 5 first coat seal.

Tunanui Road (Morere Hot Springs Area)

Tunanui Road Construction is 7km long and required widening, improvement to geometry, pavement construction and will remain unsealed.

The road was generally single lane, had poor sight distances and weak pavement. Although the road was a public road it carried mainly logging traffic and was virtually used as a forestry road.

MWH were again appointed by the Wairoa District Council to provide professional services including the survey and design of the road, preparation of the contract documents and to manage the physical work contract awarded to Russell Roads Ltd.

Predicted logging traffic volumes over the next 20 years average 20 truck loads per day. Pavement testing to design the new road included CBRs of sub grade, Benkelman Beam testing and cement / lime stabilisation response tests.

The original pavement design chosen was for a 250mm thickness of local quarry limestone topped off with a 50mm layer red metal wearing course.

Wet ground conditions have since seen the pavement design modified to 150mm of local quarry limestone stabilised with 3% cement topped off with a 50mm layer red metal wearing course.

Hastings District Council

Pohurakura Road

The Hastings District Council has one road where Regional Development Funding was sought. HDC is not part of the Tairāwhiti (East Coast) region identified for assistance; however it has a road being used to cart logs from a forest located within the Wairoa District near its boundary with Hastings. The forest is owned by Fletchers and access to the HDC road is via a new bridge being built over the Mohaka River and construction of 5km of new road to link into Pohurakura Road maintained by HDC.

Pohurakura Road from SH 5 to within 3 km from the start of the new link road was constructed in the 1970's using the Government Land Development Funding account. Most of the road is acceptable for logging traffic however 3 km at the end needed widening and other improvements plus a further 12km of the 1970s road needed pavement structure upgrade to make it suitable for the increase in traffic volumes and loadings.

Hastings is currently negotiating with Transfund NZ and Industry NZ for an increase in subsidy from it's normal 58% for the improvements to Waitara Road. They are hopeful approval will be given for the increased subsidy from TNZ because the logs are not generated within the Hastings boundary.

3. Effects for East Coast and other Regions with or without Funding

Benefits of Funding

Both the Northland and East Coast Regions have difficulty funding maintenance and basic renewals of their networks. Without the funding assistance from the Regional Development Fund it is likely trees would have remained land locked and the forests either be allowed to rot or trees be carted out in an inefficient manner and resulting in extra travel costs and safety issues for the community.

Already the funds have generated employment for people in the road construction industry, for forest harvesters and their support industries. In both Wairoa and Gisborne indicative plans are being developed to construct new mills for timber processing. Ports at Napier and Gisborne have expansion planned and the Napier to Gisborne railway is likely to have the threat of closure removed. Already there is a positive feel among the community, property prices have increased and other non associated industries booming.

Without the funding boost the “wall of wood” could have remained untouched, there would have been reduced export opportunities for New Zealand and the local skill level would have remained under utilised.

Funding Difficulties for Other Regions

Many Road Controlling Authorities in New Zealand are experiencing difficulty funding roads to support new development in their regions. Dairying has had rapid growth but roading in some cases have only just been able to keep pace with expansion. The difficulty for the roads used by forestry is the cyclic nature of harvesting. Roads have concentrated activity every 15 years or so during harvest with the remaining time use limited to forest maintenance activities. During harvesting the road is subjected to a huge increase in loading and traffic volumes rather than an even spread associated with traditional land use. Without improvements to the network prior to logging there has been conflict between the local community and the forestry industry.

Economic evaluation of improvement projects on forestry roads generally give a positive BCR but the problem for many TLA’s is the lack of local funds to support those made available from Transfund. Benefits from the improvements are measurable and include reduced vehicle operating and maintenance costs and reduced travel time and accident costs.

Influence of Funding on Design Standards

Design standards for roads receiving regional development funding are the same as for any other public road carrying forestry traffic. It is a requirement of the Transfund Funding Allocation Framework that roading improvements have the specific aim of mitigating adverse effects on safety, the environment and amenity including conflicts with tourism and the reduction of travel costs.

On going maintenance of the road after improvement is the responsibility of the RCA and has to be funded from its basic maintenance category subsidy rate. An inappropriate standard of design could cause the RCA maintenance funding problems in the future if design standards are not appropriate for the use of the road.

Difference between private forestry road and public roads

Regional Development Funding is not available to forestry companies for use on improvements to their own roads. If the roads being funded for improvements were private forestry roads, the standard required may be greater or less than for a public road. Private forestry roads are not normally subject to the traffic regulations so vehicles can be over dimensioned or carry heavy loads if required. Forestry roads are generally used exclusively for traffic generated within the forest therefore there is control on its use. The road does not have to be available for tourists or other specific vehicle such as the school buses. It is possible in the forest to control the movement of vehicles on narrow and windy roads with short sight distances by controlling traffic either by time periods or internal communication between vehicles.

Option for other RCA with similar traffic and no Regional Development Funds available

Good point – I don't know!!

Possible options

- Impose restrictions on traffic use
- Make road available for forestry use only at fixed hours to allow normal traffic safe use at other times.
- Reduce loadings to a strength existing pavement can cope with.
- Impose more user pays and costs passed on to forestry companies.
- Reduce road user charges and transfer difference in payment directly to RCAs.
- Lobby Government to provide all Road User Charges for roading use (not to consolidated fund).
- Make all regions equal (spread the funds available over the whole Country).
- Road use restricted to dry weather only.