

Appendix F: Economic Impact Assessment

ECONOMIC IMPACTS OF NELSON ARTERIAL ROAD IMPROVEMENT ALTERNATIVES

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1. INTRODUCTION

1.1 The purpose of this report is to consider economic benefits and costs associated with each of the four options identified for further analysis in Stage 2 of the study. The four short-listed options are:

- Option A: Installation of new lanes for part time (initially peak-hour) clearways on Rocks Road (clearway northbound in AM peak) and Waimea Road (clearway southbound in the PM peak). Outside the peak hour clearway periods the lanes would be available for parking and cycle lanes.
- Option B: The construction of a new southern arterial between Haven road and Annesbrook roundabouts, including possibly a flyover or an underpass at Toi Toi Street.
- Option C: Rocks Road four laning.
- Option D: Waimea Road and Rutherford Street four laning.

Each of the options would have the further option of being supplemented with improved public transport services and traffic demand management measures.

1.2 This report follows on from a Stage 1 report¹ which provided an overview of the economic outlook for the Nelson City and Tasman District economies, assuming no significant road network upgrades are implemented. For this Stage 3 report, focussing on economic issues, a number of stakeholders were provided with details of the study and the four short-listed options from Stage 2 of the study. Interviews were then conducted with each of the stakeholders.

1.3 The stakeholders contacted for this part of the study were

- The Waimea Road Business and Residents Association;
- Nelson Airport Ltd
- The Tahunanui Business Association
- The Nelson Regional Economic Development Agency
- Port Nelson Ltd
- SBL Services

¹ Nelson Arterial Study: Assessment of Economic Outlook Without Significant Network Upgrades; Brown, Copeland & Co Ltd; Appendix D in Stage 1 Report Evaluation of Existing Arterial Traffic Routes; MWH; April, 2010.

- Nelson Tasman Tourism
- Nelson Tasman Chamber of Commerce
- Road Transport Forum New Zealand Inc
- Nelson Branch, Motel Association of New Zealand
- Nelson Forests Limited

1.4 Additional studies were identified and reviewed – the Nelson Tasman Regional Economic Development Strategy Review; a freight strategy review for the ‘central’ region of New Zealand (covering Wellington, Nelson, Tasman and Marlborough but with some disaggregated data); and the Nelson Central City Strategy – Economic and Employment Opportunities report.

1.5 The focus of this report is on any additional economic benefits and costs over and above those that would be included in the benefit cost ratio analysis using NZTA’s project evaluation procedures. These procedures compare the savings in vehicle operating costs, travel time costs and road accident costs with the capital and operating and maintenance costs of each option.

1.6 This report considers economic benefits and costs from a Nelson/Tasman region perspective, rather than from the perspective of smaller sub-districts within the City. This means that economic benefits (or costs) from an option for a particular sub-district, which are offset by equivalent economic costs (or benefits) for another sub-district are only “transfers” and net out in the analysis. This is not to say that the distributional impacts of each of the options in terms of economic, social and other impacts is unimportant in the final decision making process.

1.7 The findings of this report will provide inputs to the “impacts on communities – economic” criterion which will be used in the ten criteria decision analysis framework proposed to be used to select the preferred option. This criterion only has a weighting of 5 out of a total of 72 (i.e. 6.9%). However the economic impacts identified in this report should also have an impact on other criteria, including “co-benefits” (4 out of 72 or 5.6%), “city future” (10 out of 72 or 13.9%), and “impacts on communities – social” (9 out of 72 or 12.5%).² Also to the extent there are economic efficiency benefits and costs associated with the identified economic impacts for each option, they can be taken into account quantitatively or qualitatively in the “economic efficiency” criterion (9 out of 72 or 12.5%). Therefore economic effects directly or indirectly impact on at least 51.4% of the weightings assigned to the 10 different criteria.

2. THE NELSON/TASMAN REGIONAL ECONOMY

2.1 The Stage 1 economic report³ considered the future economic prospects for the Nelson/Tasman region without significant road network upgrades. Since the completion of this report, a review⁴ of the Nelson Regional Economic

² For example the retention of, or increase in, employment opportunities within the City have social as well as economic benefits.

³ Nelson Arterial Study: Assessment of Economic Outlook Without Significant Network Upgrades; Brown, Copeland & Co Ltd; Appendix D in Stage 1 Report Evaluation of Existing Arterial Traffic Routes; MWH; April, 2010.

⁴ Nelson Tasman Regional Economic Development Strategy Review 2010; Prepared by Jon Cook and Associates for the Nelson Regional EDA; June 2010.

Development Strategy has been completed and it is helpful to summarise here some of the key points to emerge from this review:

- a) The five key “economic drivers” of the Nelson/Tasman economy with contributions to regional GDP shown in parenthesis are horticulture (\$351 million); forestry (\$339 million); seafood (\$235 million); pastoral farming (\$128 million); and tourism (\$128 million). These five sectors account for 31% of GDP;^{5 6}
- b) In the last three years (2006-09) tourism is the only one of these 5 sectors to exhibit growth in GDP or employment;
- c) The shape of the regional economy is not projected to change significantly over the next 10 to 20 years. Some expansion in aquaculture and horticulture⁷ production is possible. Increased forestry activity may occur on the back of the emissions trading scheme (ETS), although any increased log production would be at least 25 years away. The construction of a purpose built conference venue may result in an increase in visitors to the region and help extend the tourism seasonal peak;
- d) Population growth in the Tasman District will continue to outperform that of Nelson City, which has relatively little undeveloped land left for housing. Population growth in the region has been in the urban areas of Richmond and Nelson and most marked in the rural areas immediately surrounding Richmond, Brightwater, Wakefield, Wai-iti and Mapua.
- e) With close to 30% of the region’s GDP generated from bulk commodity exports and no rail network in the region, the Nelson Tasman regional economy is highly dependent upon road transport. Over 60% of the road freight sector’s operations are involved in transporting commodity exports to the port. In addition they are involved in transporting fertiliser, cars and other import trades from the port;
- f) Export volumes of the region’s key commodity industries are not anticipated to increase significantly in the coming decade or more. The port company expects about 1% per annum average growth in export and import cargoes. However spikes in demand may occur – for example log exports are currently experiencing a significant increase over recent volumes as a result of log price increases. Also a number of major trades (e.g. horticulture and fertiliser) exhibit considerable seasonality;
- g) Nelson airport has the fourth highest frequency of flights in the country with 170 flights per week;

⁵ These contributions to GDP adopt a “cluster analysis” approach where an allocation for some factors such as transport, research and other services that are essential inputs to the production of outputs from that sector are included.

⁶ Although these five sectors account for only 31% of the region’s GDP they are much more significant than the 31% figure indicates. Other sectors such as construction, health, education, business services, wholesale trade and retail trade are a consequence of the key economic sectors rather than by themselves generators of economic activity in the region.

⁷ Depending upon various water storage schemes. For example, the proposed Lees Valley dam is designed to safeguard current irrigation demand to 3,800 hectares and potentially supply an additional 2,050 hectares enabling more intensive horticultural land use.

- h) Public transport is unlikely to solve Nelson's roading problems⁸ in the short to medium term. Commuters currently using public transport amount to less than 1% of total commuters. In the future this may increase fivefold to 4%.

2.2 The review of the Nelson Tasman Regional Economic Development Strategy was a significant exercise and has involved consultation with the key stakeholders within the regional economy. It therefore provides a sound basis on which to base conclusions about the future shape of the regional economy.

2.3 The freight strategy review for the 'central' region of New Zealand⁹ is consistent with the findings of the economic development strategy review. It identifies the significance of Port Nelson as a source and destination of freight flows within Nelson City and Tasman District especially in relation to the agriculture (including horticulture), forestry and wood products and fishing industries. This study highlights the concentration of heavy commercial vehicles (HCVs) on State Highway 6 south of Nelson City – i.e. the Rocks Road/Tahunanui Drive route. It states:

“The heavy vehicle transport flow in the Nelson, Marlborough and Tasman region are relatively smaller than the Wellington region, however the percentage of total vehicles that are heavy vehicles is higher than the national and Wellington average. Sections of SH6 South of Nelson and sections of SH1 between Blenheim and Kaikoura heavy vehicles make up between 15 and 20% of total vehicle flow. This is significantly large — the national average across all telemetry sites is 10.6%. The largest heavy vehicle traffic flows are between Nelson, Blenheim, Picton and then down to Christchurch via SH1.”

2.4 The Nelson Central City Strategy¹⁰ document highlights Nelson's growing role as a service centre for the Nelson-Tasman region with employment growth in other business services, community care services, allied health services, school education and clothing and soft goods retailing being the main contributors to faster growth in employment in Nelson City than Tasman District between 2000 and 2007.

3. HORTICULTURE, FORESTRY, SEAFOOD AND PASTORAL FARMING

3.1 The tourism sector is dealt with in the next section of this report. However with respect to the other four key drivers of the local economy – horticulture, forestry, seafood and pastoral farming – export production volumes will not decline significantly. Log exports may decline if increased domestic processing of logs occurs¹¹ but this will be offset at least in part by increased exports of processed timber products and possibly increases in aquaculture and horticulture exports.

3.2 There will be a continuing need for road freight services to the Port of Nelson. This predominantly involves the movement to and from the port to the south of

⁸ I.e. concerns about congestion levels at peak times and HCV and other traffic movements on Rocks Road.

⁹ New Zealand Transport Agency Freight Analysis; Wellington, Nelson, Marlborough and Tasman Regions; Hyder Consulting (NZ) Ltd; June 2009.

¹⁰ Nelson Central City Strategy; Economic and Employment Opportunities Report; Derek Kemp; March 2009.

¹¹ The reduction in current export volumes may be around 20% if all proposed expansion of domestic processing of logs eventuates and allowing for (a smaller) increase in processed timber product exports.

Nelson City and to Tasman District. Therefore while future increases in population and employment in the south of Nelson City and Tasman may limit future growth in commuter peaks into and from Nelson's CBD, some of the employment growth to the south of the region will generate additional traffic to and from the port.

- 3.3 As a consequence, from the perspective of economic effects for the horticulture, forestry, seafood and pastoral farming export sectors of the Nelson Tasman economy road improvement options involving access to and/or from the port via Waimea Road are not favoured. An analysis by the NZ Road Transport Association using 2008 data estimated the use of Waimea Road instead of Rocks Road would cost an extra \$1 million per annum for port traffic. This takes no account of through traffic and any future increases in tonnage.
- 3.4 The NZ Road Transport Association continues to support the proposed new southern arterial option because Waimea Road extends the route to the port by too greater distance. This is on the assumption that the Rocks Road route is too valuable as a tourism and recreational asset for Nelson businesses and residents (see next section of this report) and that a new access restricted route would improve heavy commercial vehicle flows resulting in less starting and stopping, reduced trip times, reduced fuel use and reduced emissions.¹²
- 3.5 The additional costs of using Waimea Road should be incorporated in the benefit-cost ratio calculations using NZTA road improvement evaluation procedures. Therefore they are not "additional economic benefits" over and above those covered by the "economic efficiency" criterion. However such additional costs will affect the overall profitability of four of the five sectors which are key economic drivers of the Nelson Tasman economy.
- 3.6 A number of factors including movements in international commodity prices, exchange rates and other production costs will at any time affect the profitability of these four sectors and therefore employment and incomes of Nelson and Tasman residents both directly (i.e. by affecting those engaged within these industries themselves) and indirectly¹³ (i.e. by affecting those engaged in industries supplying goods and services to these industries and those employed within them). Therefore it is not possible to reliably quantify changes in levels of regional economic activity as a consequence of higher road transport costs. However clearly the Nelson Tasman region's economic prosperity is best served by seeking to maintain and enhance the competitiveness of these sectors since they play an important role in generating economic activity, employment and incomes for members of communities throughout the region.¹⁴

4. TOURISM

¹² In fact exporters are relatively indifferent to the Tahunanui Drive/Rocks Road route and the new southern arterial. At present delays during the morning and evening peaks are avoided by significant cartage at night on the existing State Highway 6 route. The new southern arterial route will be slightly longer (1 kilometre) but would it is presumed involve fewer stops and starts.

¹³ Referred to sometimes as "flow-on" or "multiplier" impacts.

¹⁴ Increases in economic activity, employment and incomes are not in themselves measures of economic welfare or economic wellbeing. However governments (national, regional and district) seek to retain and encourage business activity (and events) because associated with increased levels of economic activity are benefits from economies of scale, increased competition, reduced unemployment and sometimes enhancement of central government provided services.

- 4.1 Tourism¹⁵ is identified as one of the key economic drivers of the Nelson-Tasman regional economy. In terms of guest nights in commercial accommodation the Nelson/Tasman region is ranked 7th behind Auckland, Christchurch, Queenstown, Wellington, Rotorua and Northland. Also a large number of Nelson and Tasman residents rent their houses to holidaymakers over the summer peak and these visitors are not included in the commercial accommodation statistics. Over the year the domestic/international visitor split is 60/40, but this varies from month to month. In January it is 80/20 but is 50/50 during February, the peak month for international visitors.
- 4.2 Like the other key economic drivers the tourism sector creates both direct and indirect economic benefits to the wider regional economy. By its nature the tourism sector is spread across a number of different industry groups and enterprises geographically dispersed across the region. For example the Nelson Motel Association has provided data suggesting that for every dollar spent by a visitor on accommodation, a further \$9 are spent within the region on other goods and services.
- 4.3 Therefore while the accommodation hubs on Tahunanui Drive and the northern end of Waimea Road and Rutherford Street are those most directly affected by road improvement options between Annesbrook and Queen Elizabeth II/Haven Road roundabouts, there are also impacts for the other providers of a wide range of goods and services to visitors to the region. These other businesses are located within Nelson's CBD and elsewhere throughout the region, as are suppliers of goods and services to businesses and employees in the tourism sector.
- 4.4 There are two broad types of economic impacts on tourism from the proposed arterial road improvements. Firstly, the Tahunanui/Rocks Road area is considered to be "the jewel in the crown," for tourism in Nelson City. Beaches, seascapes and proximity to the water are of fundamental importance to Nelson's promotion of itself as a tourism destination as other cities with these attributes do worldwide. The area is the "shop front" for visitors arriving from the airport travelling into the CBD and for visitors arriving from the north and travelling to the national parks in Tasman District. The coastal route will form part of the Nelson City to Riwaka cycleway part of which has successfully obtained funding under the national cycleway project. The Tahunanui/Rocks Road area is home to a number of tourism related private sector commercial enterprises and Council infrastructure.
- 4.5 Secondly, the Nelson Motel Association has estimated that approximately 33% of its members, providing around 50% of the available accommodation in Nelson, are located on Tahunanui Drive, Waimea Road and Rutherford Street.¹⁶ Should road improvements (e.g. clearways and/or the provision of additional lanes) on these routes result in further increases in traffic flows, there is an increased risk that "drive by" customers (i.e. those who do not pre-book) would find it too difficult to access these properties and simply decide to keep going to the next destination. Also traffic noise is already reported to have resulted in lost trade for motels along Tahunanui Drive and any increases in traffic flows will exacerbate such problems. Especially during the summer peak season (January, February

¹⁵ "Tourism" includes both international and domestic visitors to the region. Also tourism statistics generally encompass all types of visitors to a region including those on holiday, those on business and those visiting friends and relations.

¹⁶ Tahunanui Drive forms part of the waterfront area and therefore a desirable place for accommodation providers. Waimea Road and Rutherford Street locations provide easy walking access to the city centre.

and March), which produces an estimated 60% of annual turnover, there may not be sufficient spare capacity within existing Nelson motels to take this lost business. As a consequence visitor expenditure will be lost from Nelson City's economy, not just on accommodation but on an additional wide range of goods and services.

- 4.6 In the longer term it is possible that motel accommodation will to some extent relocate within Nelson City to overcome these problems. However in the short to medium term they will lead to reductions in tourism expenditure within the city. Also even in the longer term accommodation outside the city may be preferred.
- 4.7 Therefore from an economy-wide economic perspective, the implications for the tourism sector are such that (a) there are strong reasons why attempts should be made to reduce traffic flows on Waimea Road/Rutherford Street/Haven Road and especially Tahunanui Drive/Rocks Road routes; (b) road improvement options involving clearways on these routes and or widening these routes to allow for increased traffic flows are not favoured; and (c) the construction of a new southern arterial between St Vincent Street and Beatson Road is favoured. This is especially the case if HCV's are directed to use the new route and therefore removed from much of the existing State Highway 6 link between Haven Road and Annesbrook roundabouts.
- 4.8 Because of the wide dispersal of visitor expenditure throughout the economy and the inter-linkages between those businesses directly involved in tourism related industries and suppliers of goods and services to them, these conclusions relate to the whole of the Nelson City economy and are not just from the perspective of those business interests directly affected by traffic volumes along the two existing arterial routes.

5. OTHER ECONOMIC EFFECTS

Loss of Business Activity

- 5.1 Increasing traffic volumes on the existing two arterial routes with or without road upgrades (clearways or four laning) will also have a negative effect on businesses other than motels located on these two routes. Business owners along the two existing arterial routes are concerned about the negative effects of traffic noise, congestion, lack of parking spaces and difficulties faced entering and exiting their properties. In a number of instances widening of the existing arterials will require land on which existing businesses are situated forcing relocation. Clearways on the existing routes may lead to uncertainty as to when the clearways will eventually give way to permanent removal of kerbside parking and the eventual permanent widening to three lanes.
- 5.2 To the extent that economic activity as a consequence of road upgrades is diverted to businesses located elsewhere within Nelson City, from a Nelson-wide perspective there is no net loss in economic activity. However to the extent business activity is transferred to other existing or new enterprises located outside the City (e.g. in Richmond, elsewhere in Tasman District, Marlborough or the West Coast) there will be a loss of economic activity from a Nelson City perspective.
- 5.3 Also to the extent businesses are forced to relocate there will be economic costs associated with this relocation. Such costs may not be fully captured in land

purchase and compensation payments included in the benefit-cost ratio calculations using NZTA road improvement evaluation procedures.

New Economic Development Opportunities

- 5.4 Reductions in traffic volumes along Tahunanui Drive and Rocks Road may be a contributing factor to greater commercial development in the Tahunanui/Rocks Road area. To the extent that such development would not otherwise have located within Nelson City this will increase overall economic activity in the City's economy. There are a number of factors which will result in urban renewal and development in this area. It is not possible to say that removing traffic from Tahunanui Drive and Rocks Road will definitely and immediately lead to redevelopment or new development. However reductions in traffic volumes in the area and easier access for local residents and tourists may be a contributing factor.
- 5.5 Improved access along St Vincent's Street may increase the likelihood of commercial development on land capable of such development in this part of the city. Again to the extent that such development might otherwise occur outside Nelson City, this will contribute to increased economic activity for the city as a whole.

Agglomeration Benefits

- 5.6 Particularly in the case of the businesses on Waimea Road and Rutherford Street, proximity to Nelson's CBD is one of the reasons for their chosen location. These businesses help to maintain and enhance the vitality and vibrancy of Nelson's CBD. If road upgrades along this route result in some of these businesses relocating further from Nelson's CBD (e.g. in Stoke or Richmond) then some agglomeration benefits will be lost.

Tahunanui/Rocks Road Recreational Area for Local Residents

- 5.7 The preservation and enhancement of the Tahunanui/Rocks Road area as a recreational area is important not just because of its appeal to visitors to Nelson, but also because it is a popular location for Nelson residents' leisure activities. Whilst this might be covered under the criterion "impacts on communities – social", it is emphasised that this is an important consideration not just from the perspective of residents living in the Tahunanui/Rocks Road area but for all residents in the City who enjoy the recreational opportunities the area offers.¹⁷

Reductions in Road Closure Costs

- 5.8 Rocks Road is on occasions subject to lane closures due to high tides, wind and slips. Having an additional arterial route between Annesbrook and the City would reduce the costs associated with such closures. This should be factored in to the benefit cost ratio calculations using NZTA's road improvement evaluation procedures.

Public Transport Implications

¹⁷ There are also benefits to residents who may not use the area but benefit from the knowledge that the area has been maintained or enhanced enabling their (or other people's) future potential use of the area – i.e. what economists call "existence values".

5.9 Having an additional arterial route between Annesbrook and the City would enable improved public transport services to be provided. Firstly it would enable a number of express services to be provided between Nelson's CBD and Richmond and Stoke. Secondly it would provide greater public transport coverage for the catchment area adjacent to and nearby the new southern arterial route. Thirdly reductions in congestion affect the level of service provided by public transport, just as they affect private vehicle travel. As travel journey times increase for public transport, the same frequency of service can only be maintained by increasing the number of buses. Therefore increased congestion along the two existing arterials will result in longer journey times and either reduced service frequencies or increased fares to cover the costs of additional buses.

6. ECONOMIC IMPACTS ON INDIVIDUAL COMMUNITIES

6.1 The two existing arterial routes have significant commercial activity located on or nearby them. The business owners along the two existing routes strongly believe that their businesses are already suffering from the heavy traffic flows along these routes and that clearways and/or additional lanes on these routes will exacerbate these negative economic (and social) impacts.

6.2 There is very limited commercial activity along the proposed southern arterial route. As already noted the new southern arterial may enable greater commercial development along or nearby this route.¹⁸ This would lift property values for owners of land which could be developed for commercial purposes.

7. CONCLUSIONS

7.1 The purpose of this report is to consider the economic benefits and costs of the four short-listed options. The economic benefits and costs considered in this report are in addition to those included in the benefit cost ratio analysis using NZTA's project evaluation procedures.

7.2 Although the findings of this report are intended to directly impact on the assessment criterion "impacts on communities – economic", they should also influence other assessment criteria, including "co-benefits", "city future", "impacts on communities – social" and "economic efficiency".

7.3 The economic benefits and costs identified in this report are generally assessed from the perspective of the Nelson City economy and not just from the perspective of a particular geographical area or other subgroup of businesses and residents within the City. Because of the inter-linkages and dependencies within a city's economy, any impacts on levels of economic activity, employment and incomes are relevant to the prosperity of all Nelson businesses and residents.

7.4 The key drivers of the Nelson economy are the horticulture, forestry, seafood, pastoral farming and tourism sectors. There are significant economic benefits to the tourism sector, and therefore the wider Nelson economy, from the proposed new southern arterial option especially if its construction is in conjunction with it becoming the designated route for HCVs and significant economic costs from the other three options involving clearways and the widening of the existing two arterial routes.

¹⁸ This would be limited to the extent that access along this route was controlled.

- 7.5 For the other four key drivers of the Nelson economy, use of the Waimea Road arterial route results in significant additional economic costs.
- 7.6 There are a range of other economic benefits which favour the proposed new southern arterial option. These include the possible retention and expansion of business activity within Nelson City, agglomeration benefits for Nelson's CBD, recreational benefits for local Nelson residents, reductions in road closure costs and improved public transport services.

NOTE ON ECONOMIC BENEFITS FROM REDUCING TRAFFIC ON ROCKS ROAD AND ENHANCING THE LINK BETWEEN NELSON CITY CENTRE AND THE WATERFRONT

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14 October, 2010

1. No attempt has been made to measure the economic benefits (in terms of increased expenditure, business profits, incomes and employment) from improving the link between Nelson City centre and the waterfront by reducing traffic on Rocks Road. This is for two reasons.
2. Firstly, part of the rationale for reducing traffic flows on this route with respect to tourism sector benefits is philosophical. The question posed by a number of persons interviewed was – if Nelson is serious about tourism can it afford to have its tourism shop window compromised by also being the main route in and out of the city and to and from the port? Reducing traffic volumes on Rocks Road is consistent with tourism promotion for Nelson City and the Nelson/Tasman region. However it is not possible to even speculate how this one action by itself would lead to increased visitor numbers, length of stays and expenditure.
3. Secondly, the development of new businesses and the expansion of existing businesses in Nelson City centre and on the waterfront are a function of a number of different factors. Traffic volumes on Rocks Road are but one of many factors which may influence new investment in Nelson City. It is not possible to map out ‘with’ and ‘without reduced Rocks Road traffic volume’ investment scenarios so that some measures of additional investment, incomes and employment can be estimated. Also even if such an exercise was attempted there would be great difficulty in isolating out that additional investment, income and employment that was in fact incremental to Nelson City and the Nelson/Tasman region and not simply transferred from other existing local businesses.
4. It is probably unrealistic to presume that reducing traffic volumes on Rocks Road will be, by itself, the catalyst which brings new industries to Nelson City or expands existing industries. However what was identified in the study was a strong argument from existing businesses along Tahunanui Drive/Rocks Road (and Waimea Road) that their trade is disrupted by heavy traffic volumes on these routes. Particularly in the case of visitor accommodation providers, disruptions to their businesses may have significant spill-over effects for other businesses in the city.