

**BEFORE THE TARANAKI REGIONAL COUNCIL AND NEW PLYMOUTH  
DISTRICT COUNCIL**

**MT MESSENGER BYPASS PROJECT**

In the matter of the Resource Management Act 1991

and

In the matter of applications for resource consents, and a notice of requirement by the NZ Transport Agency for an alteration to the State Highway 3 designation in the New Plymouth District Plan, to carry out the Mt Messenger Bypass Project

---

**STATEMENT OF EVIDENCE OF MICHAEL CAMPBELL COPELAND  
(ECONOMICS) ON BEHALF OF THE NZ TRANSPORT AGENCY**

25 May 2018

---

**BUDDLEFINDLAY**  
Barristers and Solicitors  
Wellington

Solicitors Acting: **Paul Beverley / David Allen / Thaddeus Ryan**  
Email: david.allen@buddlefindlay.com / thaddeus.ryan@buddlefindlay.com  
Tel 64-4-499 4242 Fax 64-4-499 4141 PO Box 2694 DX SP20201 Wellington 6140

## TABLE OF CONTENTS

QUALIFICATIONS AND EXPERIENCE.....	2
EXECUTIVE SUMMARY .....	3
BACKGROUND AND ROLE .....	4
SCOPE OF EVIDENCE .....	4
ECONOMICS AND THE RMA .....	4
THE NEW PLYMOUTH DISTRICT AND TARANAKI REGIONAL ECONOMIES .....	6
THE ECONOMIC IMPACTS OF THE PROJECT .....	11
RESPONSE TO SUBMISSIONS AND SECTION 42A REPORT ON ECONOMIC IMPACTS .....	19
APPENDIX 1 .....	22

## QUALIFICATIONS AND EXPERIENCE

1. My name is Michael Campbell Copeland.
2. I am a consulting economist and managing director of Brown, Copeland and Company Limited, a firm of consulting economists which has undertaken a wide range of studies for public and private sector clients in New Zealand and overseas.
3. During the period 1990 to 1994, I was also a member of the Commerce Commission and during the period 2002 to 2008 I was a lay member of the High Court under the Commerce Act. Prior to establishing Brown, Copeland and Company Limited in 1982, I spent six years at the New Zealand Institute of Economic Research and three years at the Confederation of British Industry.
4. I hold a Bachelor of Science degree in mathematics and a Master of Commerce degree in economics. I have over 40 years' experience in the application of economics to various areas of business, including transport economics and resource management matters. A summary of my curriculum vitae is attached as **Appendix 1**.
5. I have been engaged in a number of areas of road transport economics and my curriculum vitae contains details of some of the assignments related to road transport I have undertaken. With respect to the Resource Management Act 1991 ("**RMA**"), I have prepared evidence for clients covering a number of projects and policies, most relevantly including:
  - (a) the Peka Peka to Otaki, MacKays to Peka Peka and Transmission Gully sections of the Wellington Northern Corridor Road of National Significance ("**RoNS**");
  - (b) Auckland's Waterview Tunnel;
  - (c) the Additional Waitemata Harbour Crossing Project; and
  - (d) improvements to the Waitarere Beach Road Curves section of State Highway 1 ("**SH1**"), to the north of Levin.
6. I have travelled along the existing section of State Highway 3 ("**SH3**") between Ahititi and Uruti, to the north of New Plymouth and attended a workshop evaluating route alternatives to this section of SH3.
7. I confirm that I have read the 'Code of Conduct' for expert witnesses contained in the Environment Court Practice Note 2014. My evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

## EXECUTIVE SUMMARY

8. The NZ Transport Agency is progressing a series of improvements to SH3 north of New Plymouth, between Mt Messenger and Awakino Gorge (the SH3 improvements investment package). The Mt Messenger Bypass project ("**Project**") is the most significant of three sections of route improvements proposed as part of the investment package. It involves the section of corridor in the vicinity of Mt Messenger between Uruti and Ahititi.
9. This report principally addresses the economic effects of the Project as a stand-alone project, but it is also important to consider the Project in the context of the total SH3 improvements investment package.
10. Enabling people and communities to provide for their social, economic and cultural well-being and health and safety, the efficient use and development of natural and physical resources and opportunities for economic growth and employment are relevant considerations under the RMA.
11. The key drivers for the New Plymouth District economy are oil and gas exploration and extraction, manufacturing and services provided to the oil and gas, agriculture and agricultural product processing activities within the wider Taranaki region. The key drivers of the Taranaki economy are agriculture, manufacturing (including agricultural product processing and the heavy engineering industry) and the oil and gas industry.
12. SH3 north of New Plymouth is a significant transport link for Taranaki's oil and gas, heavy engineering and agricultural product processing industries.
13. During the Project's three year construction period (mid-2018 to mid-2021), there will be additional expenditure, employment and incomes for Taranaki businesses and residents. This includes both direct and indirect (or multiplier) economic impacts. The Project is expected to lead to 148 additional jobs, \$11.0 million per annum in additional wages and salaries and \$66.2 million per annum in additional expenditure on goods and services purchased from local Taranaki businesses.
14. When completed, the Project will lead to reductions in vehicle operating, travel time and road accident costs and improvements in route resilience, benefitting local residents and businesses and visitors to the New Plymouth District and wider Taranaki Region.
15. The Project will also contribute a range of additional economic benefits including improvements in trip time reliability, increased regional economic growth, generated traffic, potential travel benefits, specific road user benefits for Taranaki businesses and lifeline economic benefits.
16. The Project will not result in negative economic externality effects. A small number of local property values may possibly be negatively affected by the

Project. However any such effects are a reflection of, and not in addition to, the intangible impacts of the Project covered in the Assessment of Environmental Effects ("**AEE**") and in the evidence of other technical experts.

17. The Project will have significant overall net positive economic benefits for the New Plymouth District and the Taranaki region.

## **BACKGROUND AND ROLE**

18. The NZ Transport Agency ("**Transport Agency**") has engaged me to advise it on its proposed Project to improve the section of SH3 between Ahititi and Uruti, to the north of New Plymouth.
19. I prepared the Economics Assessment included as Technical Report 4, Volume 3 to the AEE for the Project.

## **SCOPE OF EVIDENCE**

20. The purpose of my evidence is to consider the economic impact of the Project, including in respect of:
  - (a) the costs and benefits associated with the construction of the Project; and
  - (b) the ongoing economic impact of the Project once it is completed.
21. My evidence addresses:
  - (a) economics and the RMA;
  - (b) the New Plymouth District and Taranaki Regional economies;
  - (c) the economic impacts of the Project; and
  - (d) responses to submissions and the Section 42A Reports.

## **ECONOMICS AND THE RMA**

### **Community economic wellbeing**

22. The Project will generate additional expenditure, employment and incomes within the local New Plymouth District and wider Taranaki regional economies. By improving road safety, route resilience, travel time reliability, and reducing vehicle operating costs and travel times, the Project will also directly contribute to the social and economic wellbeing of local residents and businesses and to the health and safety of residents and visitors to the District and Region. This is discussed in later sections of my evidence.

### **Viewpoint for economic assessment**

23. An essential first step in carrying out an evaluation of the positive and negative economic effects of a project is to define the appropriate viewpoint that is to be

adopted. This helps to determine which economic effects are relevant to the analysis. Typically a district (city) or wider regional viewpoint is adopted and sometimes a nationwide viewpoint might be considered appropriate.

24. For the Project, the New Plymouth District and Taranaki Region are relevant communities of interest, because the economic effects of the Project will largely (but not solely) impact on the residents and businesses of these communities.<sup>1</sup>
25. Generally with projects considered under the RMA,<sup>2</sup> the financial or commercial 'business case' analysis undertaken from the viewpoint of the project proposer is considered to be irrelevant. This is because such an analysis is of private costs and benefits, rather than the cost and benefits for 'people and communities'. In such cases, only the so called 'externalities' are relevant, side effects of the project which affect third parties other than the buyer and seller.
26. In this respect, the 'business case' analysis undertaken by the Transport Agency in relation to the Project (and other road improvement or alternatives to roading projects) is unusual in that the analysis is undertaken not from its own narrow Transport Agency perspective, but from a broader national perspective with the costs of the Project compared to road user and other benefits.<sup>3</sup> However, the Transport Agency's quantified assessment of the Project's efficiency only in part addresses "... *people and communities ... economic ... wellbeing*" and "... *the efficient use and development of natural and physical resources*" as required under the RMA in that:
  - (a) not all costs and benefits are included in the business case's quantified assessment; and
  - (b) the quantified assessment is from the national viewpoint. It does not consider the efficiency of the Project from a New Plymouth District or Taranaki regional viewpoint.
27. These factors are considered later in my evidence.

### **With and without analysis**

28. In analysing the economic effects of the Project, it is necessary to compare two forward looking scenarios ('with Project' versus 'without Project'), rather than a 'before' and 'after' comparison. This means the proper baseline for evaluating future economic (and non-economic) effects of the Project are the future volumes of traffic on the network without the Project, not current traffic volumes.

---

<sup>1</sup> To a lesser degree residents and businesses in neighbouring regions and visitors to New Plymouth and Taranaki will also benefit from the Project.

<sup>2</sup> For example new supermarkets for Foodstuffs, a new cement plant for Holcim (NZ) Limited, renewal of gold mining resource consents for Oceana Gold (NZ) Ltd and a new power station for Meridian Energy Ltd.

<sup>3</sup>Mt Messenger Bypass Bypass Project Detailed Business Case to Proceed from Initiation to Implementation; Mt Messenger Alliance for NZ Transport Agency, dated August 2017.

## **Intangible or non-monetarised effects**

29. In economics, 'intangible' costs and benefits are defined as those which cannot be quantified in monetary terms. For any project such effects may include amenity effects, landscape effects, ecological effects, Māori cultural and relationship effects, and recreational effects. Such effects may be positive or negative, a benefit or a cost for a particular community of interest.
30. Sometimes attempts can be made to estimate monetary values for so called 'intangibles' using techniques such as willingness to pay surveys or inferring values on the basis of differences in property values. However these techniques are frequently subject to uncertainty and criticism.
31. It is generally better to not attempt to estimate monetary values for these effects but to leave them to be part of the overall judgement under s 5 of the RMA. This also avoids the danger of 'double-counting' - i.e. including them within a quantified measure of efficiency and treating them as a separate consideration in the overall judgement under s 5. The 'intangible' effects of the Project have been considered in other Technical Reports appended to the AEE and are also addressed in the evidence of other Transport Agency witnesses.

## **THE NEW PLYMOUTH DISTRICT AND TARANAKI REGIONAL ECONOMIES**

### **Population**

32. The key population figures for the New Plymouth District and Taranaki region are:<sup>4</sup>
  - (a) the population of the New Plymouth District has grown from 71,100 in 2006 to 80,700 in 2017 (an increase of 13.5%, compared to a New Zealand wide increase of 14.6%);
  - (b) Statistics New Zealand's medium projection is for the District's population to grow to 94,100 by 2043 (0.6% growth per year compared to projected growth for New Zealand of 0.8% per year);
  - (c) the population of the Taranaki region has increased from 107,300 in 2006 to 118,000 in 2017 (an increase of 10.0%);<sup>5</sup> and
  - (d) in 2043 the region's population is expected to grow to 130,800, implying an average annual growth rate of 0.4% over the period 2017 to 2043.<sup>6</sup>

---

<sup>4</sup>Source: Statistics New Zealand, [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Sub-national Population Estimates, (data extracted 31 January, 2018).

<sup>5</sup> See section 4 of the Economics Assessment technical report.

<sup>6</sup>Statistics New Zealand [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Area Unit Population Projections by Territorial Local Authority; (data extracted 31 January, 2018).

## Employment and key industries

### *New Plymouth District*

33. Major categories of employment in the New Plymouth District for 2017 include:<sup>7</sup>
- (a) health care and social assistance: 4,500 jobs or 12.9% of total jobs;
  - (b) manufacturing: 4,150 jobs or 11.9% of total jobs with the main sub-sectors being fabricated metal products manufacturing (1,000 jobs), machinery and equipment manufacturing (590 jobs), primary metal and metal products manufacturing (230 jobs), food product manufacturing (970 jobs),<sup>8</sup> wood products manufacturing (490 jobs) and basic chemicals and chemical products manufacturing (400 jobs);
  - (c) retail trade 3,600 jobs or 10.3% of total jobs;
  - (d) construction: 3,150 jobs or 9.1% of total jobs;
  - (e) accommodation and food services (2,750 jobs or 7.9% of total jobs); and
  - (f) education and training: 2,450 jobs or 7.0% of total jobs.
34. The oil and gas extraction industry employed only 560 persons in New Plymouth in 2017, but it is an important generator of economic activity within the District.
35. The key economic drivers for the New Plymouth District are:
- (a) oil and gas exploration and extraction;
  - (b) manufacturing;
  - (c) services provided to the oil and gas industry; and
  - (d) services provided to agriculture and agricultural product processing activities within the wider Taranaki region.
36. There is also some tourism activity within the District which accounts for some but not all of the jobs created in the retail trade and accommodation and food services sectors.<sup>9</sup>
37. Employment in other sectors within the District is to a large extent driven by the demand for goods and services by these industries and their employees

---

<sup>7</sup>Statistics New Zealand [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Business Demography Tables. Geographic units by industry and area unit 2000 -17; (data extracted 31 January, 2018).

<sup>8</sup>Principally meat and meat products manufacturing (790 jobs).

<sup>9</sup>Employment in tourism is difficult to identify from official statistics since the relevant sectors such as retail trade and accommodation and food services for which data is collected meet the needs of domestic and international visitors, business travellers and local residents and businesses.



with the so called 'multiplier' effects<sup>10</sup> creating additional jobs for the District's economy.

*Taranaki region*

38. Major categories of employment in the Taranaki region for 2017 include:
- (a) manufacturing: employing 8,600 persons and providing 17.3% of total jobs. The major manufacturing sub-sectors are:
    - (i) meat and meat products manufacturing: employing 2,350 persons;
    - (ii) dairy products manufacturing: employing 1,650 persons;
    - (iii) machinery and equipment manufacturing: employing 1,000 persons;
    - (iv) wood and wood products manufacturing: employing 660 persons;
    - (v) basic chemical products manufacturing: employing 510 persons; and
    - (vi) primary metal and metal products manufacturing: employing 230 persons;
  - (b) agriculture, forestry, and fishing industry group: employing 3,750 persons (7.6% of total jobs);
  - (c) health care and social assistance: employing 5,400 persons or 10.9% of total jobs;
  - (d) retail trade: employing 4,700 persons or 9.5% of total jobs;
  - (e) construction: employing 4,150 persons or 8.4% of total jobs;
  - (f) education and training: employing 3,550 persons or 7.2% of total jobs; and
  - (g) accommodation and food services: employing 3,300 persons or 6.7% of total jobs.
39. The oil and gas extraction industry employed 680 persons within the region in 2017. However, these figures from Statistics New Zealand capture only the oil and gas extraction and petroleum exploration industry categories. In addition, there are a number of industries within the region which provide goods and services to the oil and gas industry, while there is another group of 'feedstock' industries (methanol, fertiliser, glue and electricity production), which were located in the region because of the availability of natural gas.

---

<sup>10</sup> These are discussed in greater detail later in my evidence.

40. A 2015 study that included employment in businesses that provide direct services to the oil and gas industry together within these 'feedstock' industries estimated direct employment of 4,343 jobs in the Taranaki region's oil and gas sector in 2013.<sup>11</sup> The study also estimated additional indirect (or 'multiplier') employment of 2,729 jobs giving total direct and indirect employment of 7,072 jobs as a consequence of Taranaki's oil and gas sector.
41. The key drivers of the Taranaki economy are the oil and gas sector, agriculture and manufacturing (including agricultural product processing and the heavy engineering industry). The oil and gas sector, although employing relatively few people, is estimated to have contributed 18.0% of the region's gross domestic product in 2017 compared to 14.5% by agriculture, forestry and fishing and 11.7% by manufacturing. Tourism's contribution to the region's GDP in 2017 was 2.3%.<sup>12</sup>
42. GDP per capita for the Taranaki region at \$71,297 is the highest for all regions in New Zealand and is 31.6% higher than the national average figure of \$54,178.<sup>13</sup> In part, this reflects the high GDP per employee in the oil and gas sector.<sup>14</sup>

### **Significance of SH3 to the New Plymouth and Taranaki Economies<sup>15</sup>**

#### *Oil and gas industry*

43. Outputs from Taranaki's oil and gas industry are transported by pipeline (gas) and road (LPG). For LPG shipments to the north, SH3 is very important, especially since shipments by sea transport are not now possible due to Auckland's Manukau Harbour no longer being dredged for use by Holcim's cement vessels.<sup>16</sup> SH3 is also important for providing access to the Maui pipeline for repairs and maintenance, while LPG shipments by road via SH3 provide a back-up source of fuel for gas customers in the top half of the North Island in the event of a Maui pipeline failure.
44. Existing and future oil and gas industry participants in Taranaki are also dependent upon SH3 for transporting into the region a number of inputs required for exploration, new developments and the operation and maintenance of existing facilities. This includes hazardous chemicals.

<sup>11</sup>The Wealth Beneath our Feet. The Next Steps. Venture Taranaki; March, 2015.

<sup>12</sup> Infometrics Taranaki Region Economic Profile: <https://ecoprofile.infometrics.co.nz/taranaki%20region>.

<sup>13</sup>Source: Statistics New Zealand regional GDP per capita data.

Stats.govt.nz/browse-for-stats/economic\_indicators/National/Accounts/RegionalGDP\_HOTPYeMar16.aspx.

<sup>14</sup>See Infometrics Taranaki Region Economic Profile: <https://ecoprofile.infometrics.co.nz/taranaki%20region>.

<sup>15</sup> Material in this section from Appendix 1 (Detailed Independent Analysis; Venture Taranaki in Association with NZ Institute of Economic Research and Beca Group Ltd) of: The Road Ahead – Economic Development Study on State Highway 3 North; Venture Taranaki; 2012, and interviews with Taranaki industry representatives.

<sup>16</sup> With the closure of Holcim's cement plant at Westport, Holcim are now directly importing cement from overseas to main ports and not utilising a coastal shipping service which previously serviced smaller ports such as Manukau.

### *Heavy engineering sector*

45. Taranaki's heavy engineering sector, made up principally of the machinery and equipment and fabricated metal products manufacturing groups, services the local oil and gas sector as well as customers elsewhere in New Zealand and overseas. While Port Taranaki is used for some exports, access to the top half of the North Island is required for other export customers (utilising the Ports of Auckland and Tauranga) and domestic customers to the north. Road transport utilising SH3 is also used for various inputs required from outside the region.
46. A feature of this industry's inputs and outputs are the number of oversized loads that need to be carried. Improvements to SH3 are expected to enable this route to be used for such loads, increasing local firms' competitiveness with Auckland, Waikato and overseas competitors. The alternative of using SH1 via Bulls or Marton is estimated to more than double land transport costs. There are less but still significant costs using SH4 (as a detour if it is open).

### *Agricultural sector*

47. The bulk of milk produced within the Taranaki region is processed at Fonterra's milk processing plants within the region<sup>17</sup> and the dairy products produced by these plants are sent by rail for export. However, to balance plant capacity and milk supply at different times of the season, Fonterra sends some milk out of the region for processing at plants in the Waikato region utilising SH3, especially during the winter season when plants in Taranaki are closed.
48. SH3 is also used for the shipment of non-containerised milk products, which are shipped to stores in the north for consolidation with other products into containers for export.<sup>18</sup> SH3 is also utilised for the shipment south of milk and milk products for processing and further processing at Fonterra's Taranaki plants. Closures of SH3 add additional costs for either detours and/or holding back milk and milk products until the route is reopened. In exceptional circumstances (closures in all north-south routes for a period longer than 24 hours) milk and milk products may need to be dumped. In the case of milk products movement by road, extended delays can result in export orders not being fulfilled.
49. Livestock from Taranaki farms is largely processed locally by Silver Fern Farms<sup>19</sup> and Anzco.<sup>20</sup> Rail is used for the export of meat and meat products from these plants. However, SH3 north of New Plymouth is used for trucking

---

<sup>17</sup> Fonterra has milk processing plants at Whareroa (near Hawera), Eltham (2) and Kapuni and a coolstore at New Plymouth.

<sup>18</sup> About 20 return "curtain sider" truck journeys per day for 300 days per annum.

<sup>19</sup> Silver Fern Farms have plants at Hawera (cattle) and Waitotara (sheep). It estimates that each year around 40,000 cattle and 10,000 sheep are trucked north to south along SH3 to its processing plant. This corresponds to circa 1,200 return truck movements per annum.

<sup>20</sup> Anzco has a plant at Eltham (cattle).

stock to Taranaki's three processing plants as well as the trucking of some stock out of the region for processing at Universal Beef Limited's (cattle) processing plant at Te Kuiti. Silver Fern Farms estimate around 30% of the stock they process is transported down SH3 north of New Plymouth. Closures of SH3 require significant detours via either SH4 or SH1 or the postponement of stock delivery to the processing plants. Some chilled products are also trucked north using SH3 for export.

50. Taranaki is the major poultry production region in New Zealand. Poultry breeding, growing, processing and distribution are concentrated in northern Taranaki with the major processing facility, owned by Tegel Foods Limited (Tegel), at Bell Block.<sup>21</sup> Tegel's processing plant at Bell Block is the largest of its 3 plants, the other two being in Auckland and Christchurch. The Bell Block plant processes 25 million chickens per annum. Tegel is the second largest private sector employer (behind Fonterra) in the Taranaki region providing over 1,000 jobs.
51. An advantage of its Bell Block site is the relatively short distance between the processing plant and Tegel's production farms. Over half of the output from Tegel's Bell Block plant is sent by refrigerated truck north via SH3. This includes finished product for domestic distribution and export and raw material for further processing at Tegel's Henderson plant. Tegel is dependent on SH3 being open and safe to travel on in order to distribute product to customers throughout the upper North Island. In the event of a road closure, the only viable alternative adds approximately 6 hours in travel time, and impacts Tegel's ability to deliver customer orders in full and on time.
52. There are a range of inputs (packaging materials and animal feeds), to the agriculture and agricultural product processing industries which are transported into the region or within the region using SH3.

#### *Forestry*

53. SH3 north of New Plymouth is used to transport logs from the north of the region (and to a lesser extent from South Waikato) to Port Taranaki for export. Improvements on the route will help improve Port Taranaki's competitive position for the log export trade.

## **THE ECONOMIC IMPACTS OF THE PROJECT**

### **Increased economic activity during Project construction**

54. During the Project's anticipated three year construction period (from mid-2018 to mid-2021) there will be increased economic activity in the New Plymouth District and the wider Taranaki region. This will be as a consequence of the additional expenditure, employment and incomes directly generated by the

---

<sup>21</sup> See Regional Land Transport Plan for Taranaki 2015/16 – 2020/21; Taranaki Regional Council in conjunction with Stratford, New Plymouth and South Taranaki District Councils and NZ Transport Agency; March 2015 (see page 7).

Project's construction and the indirect (or multiplier) expenditure, employment and incomes generated as a consequence of impacts on suppliers of goods and services to the Project and those employed on it.

55. The Project is estimated to have a total capital cost of \$199.6 million,<sup>22</sup> of which around 58% or \$115.8 million is expected to be spent in the Taranaki region. \$16.6 million of this local expenditure will be on wages and salaries for employees engaged in the Project's construction.<sup>23</sup> Over the 3 year construction period for the Project, it is estimated that there will be 74 additional jobs,<sup>24</sup> \$5.5 million in additional wages and salaries per annum and \$33.1 million per annum in additional expenditure with local Taranaki region businesses for the supply of goods and services to the Project. These are the direct economic impacts of the Project.
56. In addition to these direct economic impacts, there are indirect impacts arising from the effects on suppliers of goods and services provided to the Project from within the local economy (i.e. the "forward and backward linkage" effects) and the supply of goods and services to employees on the Project and to those engaged in supplying goods and services to the Project (i.e. the "induced" effects). For example, there will be additional jobs and incomes for employees of supermarkets, restaurants and bars as a consequence of the additional expenditure by employees directly involved in the Project.
57. Multipliers can be estimated to gauge the size of these indirect effects. The size of the multipliers is a function of the extent to which a local economy is self-sufficient in the provision of a full range of goods and services and the area's proximity to alternative sources of supply. Local multipliers typically fall in the range of 1.5 to 2.0. Taking 2.0 as the multiplier for the Taranaki region, given its relative self-sufficiency and distance from major centres, implies total impacts (i.e. direct plus indirect impacts) during the two year construction period of 148 additional jobs, \$11.0 million per annum in additional wages and salaries and \$66.2 million per annum in additional expenditure with local businesses.
58. Taking a national viewpoint, the level of economic activity (for example, expenditure, employment, and incomes) is likely to be the same with or without the Project - if funds are not utilised for the Project they are likely to be utilised on an alternative Transport Agency project, even if in a different region in New Zealand. However, taking a New Plymouth District or Taranaki regional perspective, there are likely to be increased levels of economic activity as a consequence of the Project, since without it, the funds earmarked for it are likely to be used elsewhere in New Zealand and not on an alternative road construction project in the New Plymouth District or the Taranaki region. Local firms will be engaged to provide goods and services to the Project, local

---

<sup>22</sup> Net of contingency allowances.

<sup>23</sup> Data provided by the Mt. Messenger Alliance.

<sup>24</sup> Based on an average salary rate of \$75,000 per annum.

residents will be engaged to work on the Project, and local firms will in turn provide goods and services to these employees.

59. Economic impacts such as increases in business turnover, employment and incomes are not in themselves measures of improvements in economic welfare or economic well-being. However, there are economic welfare enhancing benefits associated with increased levels of economic activity. These relate to one or more of the following:
- (a) Increased economies of scale: Businesses and public sector agencies are able to provide increased amounts of outputs with lower unit costs, hence increasing profitability or lowering prices.
  - (b) Increased competition: Increases in the demand for goods and services allows a greater number of providers of goods and services to enter markets and there are efficiency benefits from increased levels of competition.
  - (c) Reduced unemployment and underemployment of resources:<sup>25</sup> To the extent that resources (including labour) would be otherwise unemployed or underemployed, increases in economic activity can bring efficiency benefits when there is a reduction in unemployment and underemployment. The extent of such gains is of course a function of the extent of underutilised resources within the local economy at the time, and the match of resource requirements of a project and those resources unemployed or underemployed within the local economy.
  - (d) Increased quality of central government provided services: Sometimes the quality of services provided by central government (such as education and health care) are a function of population levels and the quality of such services in a community can be increased if increased economic activity maintains or enhances population levels.
50. It is reasonable to assume that any increases in economic activity as a consequence of increased road construction activity in the New Plymouth District and the Taranaki Region from the Project will give rise to one or more of these four welfare enhancing economic benefits for the District and Region.

### **Road user economic benefits from Project operation**

51. The Project will lead to reductions in vehicle operating, travel time and road accident costs and improvements in route resilience, benefitting local residents and businesses and visitors to the District and region. These traffic-related benefits of the Project are detailed and quantified in the Mt Messenger Bypass Project Detailed Business Case, dated August 2017 (see Section 8.1). In present value terms, the Project is expected to lead to travel time savings of

---

<sup>25</sup>Underemployment differs from unemployment in that resources are employed but not at their maximum worth; e.g. in the case of labour, it can be employed at a higher skill and/or productivity level, reflected in higher wage rates.

\$44.8 million, vehicle operating cost savings of \$19.9 million, accident cost savings of \$11.3 million, road resilience benefits of \$13.7 million and carbon dioxide emission reduction benefits of \$1.0 million. The Project is also expected to reduce road maintenance costs by \$1.4 million in present value terms over its operating life.<sup>26</sup>

52. Whereas some major infrastructure projects give rise to national and regional economic benefits, but localised (or 'community') costs, this Project is anticipated to bring significant local economic benefits. It is expected nearly all<sup>27</sup> of the traffic using SH3 north of New Plymouth after the improvements from the Project will have an origin or destination within the Taranaki region.
53. For businesses, savings in vehicle operating, travel time and accident costs and improvements in route resilience<sup>28</sup> result in increased productivity and increased business competitiveness. For residents, the traffic-related benefits of the Project will produce cost savings, improve personal safety and enable the freeing up of time for other productive or leisure activities.

### **Additional economic benefits**

#### *Trip time reliability benefits*

54. Trip time reliability benefits relate to the savings in time that are made when motorists perceive a reduction in the likelihood of delays as a result of road congestion, road accidents or other incidents which lead variability in travel times for particular journeys. When this occurs time is wasted by allowing for such events even when they do not occur and unproductive time is wasted at the destination. The Project in conjunction with other improvements on SH3 north of New Plymouth is expected to provide improvements in trip time reliability.

#### *Increased economic growth*

55. The Project will increase the attractiveness of the New Plymouth District and the wider Taranaki region for business and residential development, as well as improve accessibility for visitors. Therefore, the Project<sup>29</sup> is likely to result in increased levels of economic activity within the District and region from greater economic activity and population growth. As discussed previously in relation to the Project's construction, increases in levels of economic activity are not in themselves measures of improvements in economic welfare or economic well-being. However, there are economic welfare enhancing benefits associated

---

<sup>26</sup>Mt Messenger Bypass Detailed Business Case to Proceed from Initiation to Implementation; Mt Messenger Alliance for NZ Transport Agency; August 2017 (see Section 8.1).

<sup>27</sup> The only exception would be on the rare occasions when SH1 and SH4 routes north and south are closed and SH3 provides the only alternative for traffic from outside the Taranaki region to move between the south and middle of the North Island and the north of North Island.

<sup>28</sup> Improvements in route resilience translate into saved vehicle operating and travel time costs (and possibly accident cost savings) for residents, businesses and visitors as a consequence of traffic delay times on SH3 and/or longer detours via alternative routes are reduced. Also there are benefits from trips not having to be postponed or cancelled.

<sup>29</sup> Especially in conjunction with the other improvements proposed as part of the SH3 improvements investment package.

with increased levels of economic activity to the extent that they lead to increased economies of scale, increased competition, reductions in unemployment and underemployment of resources and improvements to services provided by central government.

#### *Generated traffic<sup>30</sup>*

56. The traffic benefits of the Project identified in the Detailed Business Case are based on the same assumed future growth rate for traffic on the route with and without the Project.<sup>31</sup> However, the Project, in conjunction with other improvements to SH3 north of New Plymouth, has the potential to generate additional traffic<sup>32</sup> on the route and to this extent the quantified road user economic benefits are conservatively estimated. Improvements to the route are likely to generate additional leisure trips by residents and visitors, while greater route resilience, trip time reliability in particular, will improve the competitiveness of Taranaki based businesses and the attractiveness of the region to locate new businesses or expand existing businesses.
57. Improvements to SH3 in conjunction with other promotional activities may also help to unlock the tourism potential of the Taranaki region. Although tourism currently plays a relatively minor role within the region's economy, it has the potential to increase in significance especially as tourism activity at other locations in New Zealand reach saturation levels. For example, the Pouakai Crossing in the Egmont National Park is potentially an alternative to the Tongariro Crossing in the Tongariro National Park. The Lonely Planet publication recently listed Taranaki as the second best region in the world to visit.
58. The Project, together with other SH3 improvements, has the potential to generate additional traffic (or alternatively lead to a reduction in suppressed traffic) on the route, increasing the Project's road user benefits and additional economic benefits from higher levels of economic growth and economic activity within the region.

#### *Potential travel benefits*

59. Potential travel benefits relate to the benefits to residents and businesses from knowing a trip can be made even when no trip is undertaken. In cases where route resilience and trip time reliability are significantly improved, there are likely to be some potential travel benefits from a project. There are benefits to businesses and residents from a reduction in feeling isolated even when trips

---

<sup>30</sup> Or the reduction in "suppressed traffic" due to SH3's actual and perceived lack of resilience and travel time reliability.

<sup>31</sup>The Detailed Business Case considered changes in the assumed rate of growth of vehicles in both "with" and "without" Project scenarios but not traffic growth generated specifically by the Project. Assuming traffic growth of 3% per annum the 40 year long term average rate of growth (see Detailed Business Case Section 2.1.6) instead of the base case assumed 2.4% per annum raised the BCR from 0.5 to 0.6.

<sup>32</sup>Discussion of this in Appendix 1 (Detailed Independent Analysis; Venture Taranaki in Association with NZ Institute of Economic Research and Beca Group Ltd) of: The Road Ahead - Economic Development Study on State Highway 3 North; Venture Taranaki; 2012.



are not undertaken - for example for residents through more reliable road access to Waikato Hospital and Auckland Airport and for businesses from more reliable road access for "just in time" deliveries of spare parts for machinery. Thus the Project, in conjunction with other improvements to SH3 north of New Plymouth, will give rise to potential travel benefits and these are additional to the road user economic benefits which have been quantified in the Detailed Business Case report.

*Specific road user economic benefits for Taranaki businesses*

60. The quantification of road user economic benefits in the Mt Messenger Bypass Project Detailed Business Case has adopted the Transport Agency's standard values for vehicle operating and travel time costs. These are average values to be applied in the evaluation of all road improvement projects throughout New Zealand. From discussions with Taranaki transport operators and other businesses, it is apparent that there are specific additional costs for users of SH3 which are not reflected in the Transport Agency's standard values. In particular, unexpected delays on SH3 north of New Plymouth can lead to significant additional costs as a consequence of:
  - (a) truck drivers being unable to complete New Plymouth-Auckland return journeys within daily maximum allowable driving hours per day. This requires sending replacement drivers to complete journeys or extended delays while drivers are required to rest;
  - (b) trucks arriving in Auckland too late to avoid the congestion free period on Auckland's commuter routes; and
  - (c) over-sized loads associated with Taranaki's oil and gas and heavy engineering industries being required to use the much longer SH1 route through Marton or Bulls.
61. To this extent the quantified road user economic benefits presented in the Detailed Business Case have been conservatively estimated.
62. For example, the Taranaki Branch of the Road Transport Association has estimated that the additional cost of using SH4 instead of SH3 is \$824,000 per day of closure for heavy commercial vehicles. This is based on 350 kilometres of additional running costs at \$2.20 per km, an overnight stay for a driver at \$160, 4 hours additional driver time at \$25 per hour giving a cost one way of \$1,030 per trip or \$2,060 per two way trip and 400 heavy commercial vehicle movements on SH3 per day.<sup>33</sup>

---

<sup>33</sup> Source: Email with attachment dated 27 July, 2017 to R Napier, NZ Transport Agency from T Cloke, Area Executive, RTA.

### *Lifeline economic benefits*

63. SH3 provides an alternative north/south route when other routes (e.g. SH1 and SH4) are closed. Although the concurrent closures of SH3 and these alternative routes may occur infrequently and for only limited duration, the economic impacts of such concurrent closures may be significant given that it will effect much wider route catchments than just those for SH3 when other routes are open. Also, SH3 north of New Plymouth provides an alternative to rail transport between Taranaki and the top half of the North Island including the Ports of Auckland and Tauranga). To the extent the Project increases the overall resilience of the state highway and rail networks in the central North Island, there are economic benefits additional to those quantified in the Mt Messenger Bypass Project Detailed Business Case.

### **Potential economic costs of the Project**

#### *Loss of productive land*

64. The productivity of land required for the Project is incorporated in the cost to the Transport Agency for the purchase of the land. It is therefore internalised into the Transport Agency's decision making process and does not need to be separately considered as an externality at the local, regional or national level.

#### *Property value effects*

65. A small number of properties within the vicinity of the Project will possibly be adversely affected as a consequence of visual, noise, severance and other so-called 'intangible' effects. In economics, intangible effects are those which cannot easily be measured in monetary terms. While it may sometimes be possible to estimate property value changes<sup>34</sup> as a consequence of the Project, such potential property value changes are a reflection of, and not in addition to, the intangible effects. Any potential change in property value effect does not materialise unless and until an owner sells the property. At this point there is a potential wealth loss to the seller, but no ongoing environmental effects to be borne by the seller. The purchaser of the property gains by potentially having to pay a lesser price for the property but incurs the costs of the ongoing intangible effects. From the perspective of the New Plymouth District or the wider Taranaki region as a whole, these are the costs of the intangible effects as potentially reflected in the reduction in property values but not in addition to the reduction in property values.
66. For other property owners, the increase in attractiveness of the District and region for business and residential development is likely to mean increases in property values. However, again this is likely to largely reflect the road user economic benefits rather than be in addition to these benefits.

---

<sup>34</sup> In practical terms this is not straightforward since a number of factors influence changes in property values over any given time period.

## Project economic efficiency assessment

67. Cost benefit analysis of road improvement projects involves comparison of project benefits (including vehicle operating cost savings, travel time cost savings, accident cost savings and trip travel time reliability and route resilience improvements) with project costs (including capital costs and changes in operation and maintenance costs).
68. The methods used to estimate the benefits and the costs together with the procedures to adopt for their evaluation are set out in the Transport Agency's Economic Evaluation Manual ("**EEM**")<sup>35</sup> and are based on considerable local and international research. The methods and data have been refined over a number of years. They are consistently applied over all road improvement project evaluations and alternatives<sup>36</sup> to roading project evaluations seeking funding from the Transport Agency. This is done to assist with the prioritisation of alternative Transport Agency and local authority projects<sup>37</sup> which are proposed to be funded from the National Land Transport Fund.<sup>38</sup>
69. However, the BCR as a measure of efficiency is now only one of the relevant assessment and ranking criteria, with the other criteria being 'strategic fit' and 'effectiveness'. The Transport Agency has rated the Project 'high' for strategic fit, 'low' for effectiveness and 0 to 1 for efficiency.
70. The latest base case BCR based on conventional cost benefit analysis for the Project is estimated at 0.5 and ranges between 0.4 and 0.7 in sensitivity testing.<sup>39</sup>
71. Under the RMA there are important and relevant considerations that are not reflected by the BCR. These include:
  - (a) Not all the costs and benefits of a project can be quantified in monetary terms. 'Intangibles' (landscape, ecology and cultural effects for example) must be considered outside the quantitative BCR calculation.
  - (b) The BCR is calculated from the national perspective and does not provide information about the distribution of costs and benefits from a New Plymouth District or Taranaki regional perspective. At a regional and district level the BCR will be larger as nearly all of the benefits will accrue to local businesses and residents, whereas the costs of the Project will be funded from a national pool of resources.

---

<sup>35</sup>Previously this document was called the Project Evaluation Manual ("**PEM**"). When the procedures were first developed they were contained in a document referred to as Technical Recommendation No. 9 ("**TR9**").

<sup>36</sup>For example, public transport projects.

<sup>37</sup>For example, those seeking Transport Agency funding.

<sup>38</sup>The EEM procedures and databases are not used to determine the overall size of the budget for investment in road improvement projects – in other words the analysis is not used to determine the relative priorities of transport and non-transport related projects.

<sup>39</sup>Mt Messenger Bypass Detailed Business Case to Proceed from Initiation to Implementation; Mt Messenger Alliance for NZ Transport Agency; August 2017 (see Section 8.4).

- (c) There is no certainty that, if the Project does not proceed, the funds earmarked will be available for road improvement (or other) roading projects in the New Plymouth District or the Taranaki region. The funds may instead be used for road improvement (or other) roading projects elsewhere in New Zealand. Therefore, from a New Plymouth District or Taranaki regional perspective, the Project has a very high BCR since the benefits are significant but the opportunity cost of the funds for the New Plymouth District and the Taranaki region is very low.
- (d) There are economic benefits (see earlier sections of my evidence) from the Project and which have been excluded from the quantitative analysis estimating the BCR for the Project.
- (e) No account has been taken in the BCR's estimation of the residual value of the Project at the end of the 40 year analysis period.<sup>40</sup> While the Project does not have a residual value in the sense that it cannot be sold or redeployed in other uses, it has a residual value in that it is likely to continue providing a stream of net traffic operating benefits into the future.

## **RESPONSE TO SUBMISSIONS AND SECTION 42A REPORT ON ECONOMIC IMPACTS**

72. I address below economic issues raised in submissions on the Project and in the Section 42A Reports on the Project.

### **Submissions**

73. A total of 1,154 submissions in support of the Project were received.<sup>41</sup> Of these, most (1,134) submissions were lodged using the same standard 'form' submission template. This identified the importance of the SH3 link for the people and businesses of Taranaki and the improvements to safety and reliability that the Project would deliver.
74. Other submissions<sup>42</sup> in support of the Project listed a range of economic benefits from the Project including:
- (a) benefits to Taranaki's economy and the future economic and social prosperity and health of its residents;
  - (b) improvements to road safety;
  - (c) improvements to route and regional transport network security and resilience;

<sup>40</sup> Previously the EEM required a 30 year analysis period to be used. The analysis period has recently been increased to 40 years together with the discount rate being lowered from 8% to 6%.

<sup>41</sup> There were 17 late submissions in support, all standard 'form' submissions.

<sup>42</sup> Including those from the NZ Heavy Haulage Association, the Road Transport Association, the NZAA Taranaki District Council, Tegel Foods Ltd, TIL Logistics Ltd, J D Hickman Ltd, J Swap Contractors Ltd, Bert Hamilton, Stephen Barham, Scott Prestidge, Kevin Thomas, Christine Brown and the SH3 Working Party.

- (d) reduced costs from not having to take alternative routes when SH3 is closed;
- (e) reductions in fuel usage;
- (f) improved business productivity and sustainability;
- (g) less driver stress and fatigue;
- (h) less braking and related vehicle maintenance costs;
- (i) reduced tyre wear;
- (j) reduced vehicle noise from vehicles being able to operate at higher gearing;
- (k) reduced damage to freight from improved ride;
- (l) benefits for national and regional tourism; and
- (m) being able to better accommodate elevated heavy volumes when SH1 is closed.

75. There were no economic effects identified in the 20 submissions opposing the Project, or the three submissions that were neutral.

#### **Section 42A Reports**

76. The Taranaki Regional Council ("**TRC**") Section 42A Report at paragraphs 224 to 228 lists the positive effects of the Project and these include safety benefits, resilience and journey time benefits and economic benefits. At paragraph 312 the TRC Section 42A Report concludes that the Project *"will have positive social and economic effects for the wider Taranaki community"*.

77. The New Plymouth District Council ("**NPDC**") Section 42A Report on page 2 in its summary states:

*"The Mt Messenger Bypass project seeks to address the operational constraints of the existing alignment to provide a safer, more efficient and resilient modern highway. This is anticipated to result in transport, economic and social benefits with SH3 being regionally significant infrastructure."*

78. The positive effects of the Project identified in the AEE are summarised in paragraphs 114 and 115 of the NPDC Section 42A Report. These include enhanced safety conditions, a more resilient highway, reduced road length, improved connectivity, a highway that accommodates over dimension loads, higher local and regional economic growth and productivity and a range of other economic benefits during the Project's construction and operation.

79. On page 108, in addressing matters under section 7 of Part 2 of the RMA, the NPDC Section 42A Report says:

*"I agree with page 260 of the AEE where it states the project will help to ensure the efficient use and development of natural and physical resources by providing capacity to support growth within the Taranaki region and through improving resilience of the SH3 network. However, I query whether an on-line route could have been more efficient and led to reduced effects."*

80. I understand the evidence of Mr Peter Roan and Mr Rob Napier, providing evidence on the assessment of alternative options, will address the reasons why the Project alignment has been preferred to the existing 'on-line' route and other alternatives that were evaluated by the Transport Agency.

81. At paragraph 371 (on page 112) the NPDC Section 42A Report concludes:

*"My overall conclusion in respect of Part 2 matters is that confirmation and approval of the notices of requirement and resource consents to enable the bypass seek to promote the sustainable management of natural and physical resources. Providing a safe, resilient and modern alternative to the existing route for SH3 will enable people and communities to provide for their social and economic wellbeing and for their health and safety. However, there remain adverse ecological and cultural effects which I consider need further resolution before I would consider the scale of the benefits which have been identified outweigh the adverse effects. These relate to whether cultural and ecological effects are appropriately mitigated, offset or compensated."*

82. The resolution of matters pertaining to ecological and cultural effects is dealt with in the evidence of other Transport Agency witnesses.

83. Finally, in relation to economic matters, the NPDC Section 42A Report concludes at paragraph 375 (on page 112):

*"I attribute significant weighting to the positive traffic, social and economic effects that are anticipated to arise from the proposal. I acknowledge that 1154 people lodged submissions in support of a modern highway to provide safer and more resilient connections for family, businesses and communities. For New Plymouth District, this is an extremely large number of submissions in support which indicates a significant level of support within the District."*

**Michael Copeland**  
**25 May 2018**

## APPENDIX 1

### CURRICULUM VITAE OF MICHAEL CAMPBELL COPELAND

<b>DATE OF BIRTH</b>	3 October 1950
<b>NATIONALITY</b>	New Zealand
<b>EDUCATIONAL QUALIFICATIONS</b>	Bachelor of Science (Mathematics) 1971 Master of Commerce (Economics) 1972
<b>PRESENT POSITIONS</b>	
(Since 1982) (Since 2017)	Economic Consultant, Brown, Copeland & Co Ltd Trustee, Trade Aid (Kapiti)

#### PREVIOUS EXPERIENCE

1978-82	NZ Institute of Economic Research Contracts Manager/Senior Economist
1975-78	Confederation of British Industry Industrial Economist
1972-75	NZ Institute of Economic Research Research Economist
1990-94	Member, Commerce Commission
2001-06	West Coast Regional Council Trustee, West Coast Development Trust
2002-08	Lay Member of the High Court under the Commerce Act 1986
2003-11	Director, Wellington Rugby Union
2010-13	Director, Southern Pastures
2010-17	Director, Healthcare New Zealand Holdings Limited

#### GEOGRAPHICAL EXPERIENCE

- New Zealand
- Australia
- Asia (Cambodia, India, Indonesia, Kazakhstan, Malaysia, Nepal, Pakistan, People's Republic of China, Philippines, Tajikistan, Sri Lanka, Uzbekistan, Viet Nam)
- South Pacific (Cook Islands, Fiji, Kiribati, Tokelau, Tonga, Tuvalu, Vanuatu, Western Samoa)
- United Kingdom

#### AREAS OF PRIMARY EXPERTISE

- Agriculture and Resource Use Economics (including Resource Management Act)
- Commercial Law and Economics (including Commerce Act)
- Development Programme Management
- Energy Economics
- Industry Economics
- Transport Economics

## RESOURCE MANAGEMENT ACT SPECIFIC PROJECTS

- Port storage facilities at Westport;
- The proposed Clifford Bay ferry terminal;
- The proposed pipeline and related facilities to utilise water from the Waikato River for metropolitan Auckland;
- A container terminal expansion by the Ports of Auckland;
- The proposed Variation No. 8 to the Wellington City District Plan covering height and other controls on development of the airspace above the Wellington railway yards;
- Proposed expansion of Paraparaumu town centre within the Kapiti Coast District;
- Wellington City Council's heritage preservation policy;
- Solid Energy's proposed West Coast Coal Terminal at Granity;
- Solid Energy's Mt William North coal mine at Stockton in the Buller District;
- The proposed Waimakariri Employment Park;
- The designation of land for a proposed motorway extension in the Hawke's Bay;
- The Hastings District Council's Ocean Outfall - two consent renewal applications;
- A proposed new shopping and entertainment centre in Upper Hutt;
- Rezoning of land in Upper Hutt from Business Industrial to Residential;
- New regional correctional facilities in Northland, South Auckland, Waikato and Otago;
- Proposed controls on wake generation by vessels travelling within the waterways of the Marlborough Sounds;
- The expansion of marina facilities within the Marlborough Sounds;
- Southern Capital's proposed new township at Pegasus Bay, north of Christchurch;
- Renewal of water resource consents for the Tongariro Power Development Scheme;
- Economic analysis inputs to a Section 32 report for the Waitaki Water Allocation Board;
- The imposition of land use restrictions within noise contours surrounding Christchurch International Airport;
- The expansion of the Whangaripo Quarry in Rodney District;
- The economic significance of Winstone's proposed quarry at Wainui, in the north of Auckland City;
- A proposed five star hotel development for Wanaka;
- Holcim's proposed new cement plant near Weston in the Waitaki District;
- TrustPower's proposed new wind farm at Mahinerangi in Central Otago;
- TrustPower's proposed new Arnold hydroelectric power scheme on the West Coast;
- McCallum Bros and Sea Tow Limited's appeal before the Environment Court regarding extraction of sand from the Mangawhai-Pakiri embayment north of Auckland;
- The development of the Symonds Hill pit at Winstones' Hunua Quarry;
- The rezoning of land for residential development at Peninsula Bay, Wanaka;
- The rezoning of land for more intensive residential development at PekaPeka on the Kapiti Coast;
- A gondola development for the Treble Cone skifield;
- A gondola development for the Snow Farm and Snow Park skiing and snowboarding facilities;
- The extraction of gravel from the bed of the Shotover River;
- The proposed Hilton hotel development on Wellington's Queen's Wharf;
- Land use restrictions in relation to the Runway Extension Protection Areas for Christchurch International Airport;
- A new residential and commercial development by Apple Fields at Belfast on the outskirts of Christchurch;
- A proposed business park development on land at Paraparaumu Airport;
- The proposed redevelopment of Wellington's Overseas Passenger Terminal;
- The proposed Central Plains irrigation scheme in Canterbury;
- The staging of residential and business development at Silverdale North in the Rodney District;
- The redevelopment of the Johnsonville Shopping Centre;



- A Plan Change enabling the relocation of existing development rights for a residential and commercial development on Mount Cardrona Station in the Queenstown Lakes District;
- A new Pak'n Save supermarket at Rangiora;
- New supermarkets at Kaiapoi, Whitby, Silverstream and Havelock North;
- The extension of the TeRereHau wind farm in the Tararua District;
- MainPower's proposed new wind farm at Mount Cass;
- Fonterra's proposed new milk processing plant at Darfield and its subsequent expansion;
- Fonterra Pahiataua milk powder plant expansion;
- Fonterra's proposed new coal mine in the Waikato District;
- Assessment of the economic significance of ANZCO's Canterbury operations to the Canterbury regional economy;
- Resource consent extensions for Oceana Gold (New Zealand) Limited's gold mining operations at Macraes Flat in north-east Otago, the Globe Mine at Reefton and a proposed underground gold mine at Blackwater on the West Coast;
- Designation of land for NZTA's Waterview motorway project in Auckland;
- Designation of land and resource consents for NZTA's Transmission Gully motorway project in Wellington;
- Designation of land and resource consents for NZTA's MacKays to PekaPeka Expressway;
- Designation of land and resource consents for NZTA's PekaPeka to Otaki Expressway;
- Resource consents for NZTA's Basin Reserve Bridge Project;
- Resource consents for NZTA's Puhoi to Warkworth motorway extension;
- Resource consents for the Ruataniwha Water Storage Scheme;
- Assessment of the economic effects of a Queenstown Airport Corporation's proposed Notice of Requirement for the designation of additional land for aerodrome purposes;
- Assessment of the retail effects of proposed Plan Change 19 to the Queenstown Lakes District's District Plan;
- Assessment of the regional and national economic significance of Lyttelton Port;
- The economic benefits of utilising a Recovery Plan under the Canterbury Earthquake Recovery Act for the rehabilitation and enhancement of facilities at Lyttelton Port;
- The economic effects of the Lyttelton Port Company's Capital Dredging Project;
- Meridian's proposed new Mokihinui hydro scheme;
- Assessment of the economic effects of alternative wreck recovery options for the MV Rena;
- Assessment of the economic benefits and costs of Transpower's corridor management approach to giving effect to the National Policy Statement on Electricity Transmission in District and City Plans;
- Assessment of economic effects of a proposed extension to Arrowtown's urban boundary;
- Assessment of the economic benefits of overhead deployment of ultrafast broadband infrastructure;
- Assessment of the economic benefits of the proposed Ruataniwha Water Storage Scheme;
- Preparation of evidence for Transpower in relation to the proposed Ruakura development on the outskirts of Hamilton City;
- Preparation of two reports reviewing the economic benefits of the Hobbiton movie set at Matamata;
- Assessment of the economic benefits of renewal of a water discharge consent for Silver Fern Farm's Belfast meat processing plant;
- Preparation of evidence for Transpower in relation to the Proposed Auckland Unitary Plan;
- Preparation of evidence for Christchurch International Airport Limited, Transpower, Ngāi Tahu Property Limited, the Lyttelton Port Company, Tailorspace Limited, Church

Property Trustees, the Roman Catholic Bishop of the Diocese of Christchurch, Pacific Park Limited, Fulton Hogan and the Christchurch Aggregates Producers Group in relation to the Proposed Christchurch Replacement District Plan.

- Preparation of evidence for Darby Planning LP, Soho Ski Area Limited, Treble Cone Investments, Lake Hayes Ltd, Lake Hayes Cellar Ltd and Mount Christina Limited in relation to economic issues concerning the Rural and Rural Recreation and Rural Lifestyle Chapters of the Proposed Queenstown Lakes District Plan;
- Preparation of evidence for Coastlands Shoppingtown Limited in relation to the proposed Kapiti Coast District Plan;
- Preparation of evidence for Tinline Properties Limited in relation to a proposed plan change to enable the establishment of an out of centre supermarket;
- The assessment of the economic effects of a proposed Plan Change for safeguarding the future efficient operations of the Rangiora Airfield;
- The assessment of the economic effects of proposed changes to Queenstown Lakes District Plan covering the Jack's Point resort area;
- The assessment of the economic benefits of the development of a marquee golf course in Christchurch;
- Economic assessment of Waitemata Harbour Crossing Project alternatives.