Before a Board of Inquiry
Transmission Gully
Notices of Requirement and Consents

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under: the Resource Management Act 1991

in the matter of: Notices of requirement for designations and resource consent applications by the NZ Transport Agency, Porirua City Council and Transpower New Zealand Limited for the Transmission Gully Proposal

between: **NZ Transport Agency**
Requiring Authority and Applicant

and: **Porirua City Council**
Local Authority and Applicant

and: **Transpower New Zealand Limited**
Applicant

Statement of rebuttal evidence of Timothy [Tim] Martin Kelly (Transportation) for the NZ Transport Agency and Porirua City Council.

Dated: 17 January 2012

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STATEMENT OF REBUTTAL EVIDENCE OF TIMOTHY [TIM] MARTIN KELLY FOR THE NZ TRANSPORT AGENCY AND PORIRUA CITY COUNCIL

INTRODUCTION

1 My full name is Timothy [Tim] Martin Kelly.

2 I have the qualifications and experience set out at paragraphs 2 and 3 of my statement of evidence in chief, dated 15 November 2011 (*EIC*).

3 I repeat the confirmation given in my EIC that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses (Consolidated Practice Note 2011).

4 In this statement of rebuttal evidence, I:

4.1 Respond to the evidence of:

(a) Natasha Hayes, on behalf of the Greater Wellington Regional Council *(GWRC)*;

(b) Don Wignall, on behalf of the Kapiti Coast District Council *(KCDC)*;

(c) Michael Mellor, on behalf of the Rational Transport Society *(RTS)*;

(d) Kerry Wood, on behalf of the RTS;

(e) Dr Ralph Chapman, on behalf of the RTS;

(f) Dr Susan Krumdieck, on behalf of the RTS;

(g) John Vannisselroy, on behalf of the RTS;

(h) Paula Warren on behalf of the RTS;

(i) Patrick Morgan, on behalf of the Mana Cycle Group *(MCG)*;

(j) Liz Thomas, on behalf of Living Streets Aotearoa *(LSA)*; and

4.2 Respond to the section 42A report dated November 2011, provided by John Kyle of Mitchell Partnerships.

5 The fact that this rebuttal statement does not respond to every matter raised in the evidence of submitter witnesses within my area

of expertise should not be taken as acceptance of the matters raised. Rather, I rely on my EIC and this rebuttal statement to set out my opinion on what I consider to be the key transportation matters for this hearing.

6 For the purposes of this evidence, I will refer to the NZ Transport Agency (*the NZTA*) Project[1] and the Porirua City Council (*PCC*) Project[2] collectively as the "Transmission Gully Project" (and hereafter, *the TGP* or *the Project*).

SUMMARY OF EVIDENCE

7 I have thoroughly reviewed all of the relevant statements of evidence provided by submitters and the section 42A report.

8 This review has not caused me to depart from the opinions expressed in my EIC. For this reason, I am able to confirm the conclusions reached in my EIC.

EVIDENCE OF SUBMITTERS

Consistency with the Wellington Regional Land Transport Strategy (WRLTS)

9 In his evidence, Mr Mellor concludes that *'there are sufficient divergences between the Proposal's outcomes and those of the WRLTS for the Proposal to be considered inconsistent with the WRLTS'.* [3]

10 Mr Mellor reaches this conclusion based upon an assessment of the Project against the 'key' and 'related' outcomes defined by the WRLTS. Further, he believes that because of the predominance of the Project in terms of expenditure, an inability to comply with any individual outcome means that the Project does not comply with the WRLTS as a whole.

11 Similarly, Ms Warren believes that *'the project is not in accordance with the RLTS objectives and key outcomes'*.[4]

12 The conferencing of the traffic experts on 9 December agreed that: *'the Project is an integral component of the WRLTS as approved by the Regional Transport Committee (RTC) and that such approval*

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1 The 'NZTA Project' refers to the construction, operation and maintenance of the Main Alignment and the Kenepuru Link Road by the NZTA.

2 The 'PCC Project' refers to the construction, operation and maintenance of the Porirua Link Roads (being the Whitby Link Road and the Waitangirua Link Road) by PCC.

3 Evidence of Michael Mellor, paragraph 24.

4 Evidence of Paula Warren, paragraph 82.

does not necessarily require an individual project to deliver on all of the eight outcomes'. [5]

13 As shown by the support of GWRC for the Project, there is no expectation that a project relating to single mode of transport will achieve compliance with any specific number of the outcome areas. In this regard, I agree with the evidence of Ms Hayes which states that: *'The Wellington RLTS does not require that an individual project must deliver on all eight outcomes. The key outcomes relate to the strategic approach and the expectation that the region will progress packages and combinations of projects that contribute to this range of outcomes.'* [6]

14 In my view, this is a logical approach, which recognises that the achievement of all of the WRLTS objectives will only be achieved by the progression of packages of projects in each corridor.

15 For these reasons, I do not agree with the views of Mr Mellor or Ms Warren that the Project is inconsistent with the WRLTS. Indeed, and as confirmed in the evidence of Ms Hayes[7], the Project is consistent with a number of specific policies of the WRLTS, and will make a significant positive contribution to many of its key outcomes.

Provision of a Local Route from SH1 at Paekakariki to MacKays Crossing

16 Mr Wignall suggests that there is a need to provide a local route between Paekakariki and MacKays Crossing, as part of a continuous alternative route, which he suggests would increase accessibility to economic activities and prevent development being constrained by the location of intersections.[8]

17 From the perspective of local accessibility, I do not believe that the provision of a parallel section of local road would materially change access to local activities. This is because the section in question is short (only around 500m out of the 27km Project length) and there are no existing or likely activities in this area that would be affected.

18 Mr Wignall suggests that the parallel local route would provide access to and from the State Highway by means of the existing intersection at MacKays Crossing, removing the slip roads currently proposed to the south.

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5 Reference to 1st joint statement, 9 December 2011, paragraph 11

6 Evidence of Natasha Hayes, paragraph 27.

7 Evidence of Natasha Hayes, paragraphs 64 – 68.

8 Evidence of Don Wignall, paragraph 4.22.

19 Whilst such a configuration has not been modelled, I consider it likely that the additional complexity and travel times involved for local movements would lead to a further, but small, reduction in traffic volumes using the coastal route. Whilst this would generate a marginal additional benefit for those communities along the coastal route, this would be offset by the additional costs of travel for the movements affected. Overall, I consider it unlikely that the configuration as proposed by Mr Wignall would offer any net benefits in this respect.

20 Mr Wignall considers that the proposed weaving sections between the MacKays crossing intersection and the connection with the existing SH1 north of Paekakariki would be too short, resulting in a hazard[9]. This matter has been addressed in the rebuttal evidence of **Mr. Edwards**.

Treatment of the Existing SH1 Coastal Route

21 With reference to the application of a package of measures to the existing SH1 coastal route, Mr Wignall suggests that: *'recent engagement with the Council has been very limited and information has only been provided in a limited form immediately prior to this evidence being prepared. The package of indicative measures ... is only vaguely defined .... and no process for their successful delivery is suggested.'*[10]

22 A number of indicative measures were described in the Assessment of Traffic and Transportation Effects (*ATATE*) report[11]. As this report and my EIC make clear, this package was developed in order to enable the modelling to be undertaken on a realistic basis. The package is only indicated in an outline form because it is considered more appropriate for the two local authorities to define the details of the package, at the appropriate time and in consultation with their communities and each other.

23 Mr Wignall goes on to express concerns that, without appropriate treatment, increased speeds could have a detrimental impact upon safety along the coastal route[12]. In my view, it is unreasonable to presume that safety standards would decline since traffic speeds will continue to be controlled with the speed limits in force along the coastal route. In the event that lower traffic volumes were to result in problems of compliance, this could be appropriately addressed through enforcement. I anticipate, however, that speed limits would be reviewed as part of the package of measures developed and applied to the coastal route.

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9 Evidence of Don Wignall, paragraphs 4.11, 4.12.

10 Evidence of Don Wignall, paragraph 5.2.

11 Section 1.6.2.2.

12 Evidence of Don Wignall, paragraphs 5.3 – 5.8.

Tolling

24 Mr Wignall suggests that sensitivity testing should have included a scenario in which tolls are applied to users of the Project, since this would directly affect the volumes of residual traffic using the existing SH1 coastal route.[13]

25 Such a test was not warranted for two principal reasons. Firstly, the NZTA has no current plans to apply tolls to the route (this matter is addressed in the EIC of **Mr Nicholson**[14]). Secondly, there would be little point in the application of tolls by the NZTA if this would be likely to cause a significant diversion of traffic to the existing route, because this would be contrary to the wider objectives of the Project.

26 As such, the scenario which Mr Wignall requests be subject to testing would not only be hypothetical, but the results would not be helpful in the context of designing the detail of the measures to be applied to the existing coastal route (since the implied residual traffic volumes would not eventuate).

Traffic Growth

Mr Wignall

27 Mr Wignall raises concerns regarding the apparently low rate of forecast traffic growth on SH1[15]. The explanation for this was provided to Mr Wignall during conferencing and is set out below.

28 For the existing SH1 to the south of Paekakariki, the traffic model forecasts a total growth in traffic volumes of 2.7% in the period 2006 – 2026, without the Project in place. This contrasts with observed growth (from NZTA traffic counters) of 8.2% in the period 2006 – 2010.

29 Caution is required in the derivation of observed traffic growth rates from only two data points (2006 and 2010). Not only was the 2006 traffic volume lower than that in both 2005 and 2007, but growth rates for short-term periods are subject to significant variation. This means that the growth rate for the 2006-10 period (at 2.1% pa of 2006 volumes) is higher than the longer term trend for the period since 1993 (which is 1.5% pa of 2006 volumes).

30 The modelled total growth of 2.7% for the period 2006-2026 without the Project in place is due to a forecast reduction in the number of light vehicle movements (by 6% or 620 vehicles/day) on this section of SH1.

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13 Evidence of Don Wignall, section 6.

14 Paragraphs 114 – 115.

15 Evidence of Don Wignall, paragraphs 7.1 – 7.3

31 Without the Project, the Paekakariki Hill Road is forecast to experience an increase in traffic movements of 400 vehicles/day over the same period. This arises because of the decreasing level of service offered by SH1. Virtually all of this increase is in light vehicle movements, because of the poor geometry of the Paekakariki Hill Road.

32 Also, rail patronage throughout the same period (again, without the Project) is forecast to show significant growth over this period, of approximately 2,650 passengers/day. This is the expected effect of the upgrades to the rail network. These additional rail passengers are equivalent to approximately 1,900 vehicle movements (based upon typical occupancy values).

33 These two effects combined have the effect of reducing light vehicle movements in 2026 by approximately 2,300 vehicles/day. Without these effects, the forecast total growth over the period 2006 - 2026 would be 13.0% (or 0.65% pa) instead of 2.7% (or 0.13% pa).

34 It is important to note that the effects of the rail upgrade have yet to be exhibited in terms of increased rail patronage (and correspondingly, in any suppression of observed rates of growth in SH1 traffic volumes).

35 **Figure 1** shows patronage figures (for the Paraparaumu line) in the period since May 2005 and illustrates that there has been little growth reported in the period to July 2011. This is despite retail fuel prices rising by 66.8%[16] over the same period.

36 Other factors also have some influence upon the modelled rates of growth (such as trip redistribution / suppression) but these effects (which are inter-related) cannot be easily isolated in the model.

37 It is important to note that, if, as suggested by Mr Wignall, the model is understating future traffic volumes in the corridor, then the benefits which the Project will bring will be similarly understated.

38 Mr Wignall considers that the forecast reduction in traffic volumes through Paekakariki expected to arise from the Project is high and expresses some surprise that all through traffic is expected to divert to the Project in preference to use of the existing coastal route[17].

39 As stated in my EIC[18], I consider the forecasts in this respect to be intuitively correct, in the context of a Project offering significant travel time savings and without the application of any user tolls. I

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16 Source: http://www.med.govt.nz/sectors-industries/energy/energy-modelling/data/prices

17 Evidence of Don Wignall, paragraphs 7.4 – 7.7.

18 EIC, paragraphs 127-8.

acknowledged in my EIC[19] that some people will inevitably use routes which are not those predicted by the model, but that such effects are small in the context of the wider assessment and are likely to largely cancel one another out.

Dr Krumdieck

40 In her evidence, Dr Krumdieck concludes that *"In my expert opinion, the peak in congestion in Wellington has already occurred, and VKT [vehicle-kilometres travelled] will gradually decline indefinitely. Thus, the Transmission Gully project is at considerable risk of not providing long-term (or even short-term) benefit to the city in this regard."*[20]

41 Dr Krumdieck appears to have reached this conclusion based on her analysis of general trends and from some specific surveys and investigations in Oamaru, Christchurch and overseas. However, she appears to have omitted to consider the NZTA's extensive historic traffic count data[21], which illustrates long term traffic growth trends (dating back at some sites to the early 1960s) at count sites throughout New Zealand.

42 **Figure 2** presents a graph of the historic traffic growth trends for the relevant sections of SH1 and SH58. For SH58, data is from a site to the east of Pauatahanui (close to the proposed intersection with the Project). For SH1, results have been combined for four sites spread along the section between MacKays Crossing and Linden:

42.1 SH1 South of MacKays Crossing (i.e. at the northern end of the Project);

42.2 SH1 North of Pukerua Bay (i.e. between Paekakariki and Pukerua Bay);

42.3 SH1 at Paremata Bridge (i.e. north of the SH1 / SH58 intersection); and

42.4 SH1 at Tawa College (i.e. at the southern end of the Project).

43 The graph, which summarises growth relative to 1971 (the first year for which full data was available for all sites) shows a strong trend of long-term increasing traffic demand, albeit with some annual fluctuations. Although there may have been a reduction in the rate of traffic growth at some sites over the last few years (i.e. traffic volumes are still growing, but perhaps more slowly than they were

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19 EIC, paragraph 151.

20 Evidence of Susan Krumdieck, paragraph 17.

21 The NZTA's historic state highway traffic volume data is available at http://www.nzta.govt.nz/resources/state-highway-traffic-volumes/index.html.

previously), this is not universal, because some of the sites show a steady or even increasing rate of traffic growth. There is certainly no evidence that traffic volumes in the vicinity of the Project are reducing.

44 In my opinion, these graphs do not support Dr Krumdieck's conclusion that the peak in congestion in Wellington has already occurred. Rather, in my opinion, these graphs show that on the state highway corridors that are directly relevant to the Project, traffic volumes (and therefore vehicle-kilometres travelled and congestion) are continuing to increase, as they have over a long period of time. In my view, I consider that it would irresponsible to plan the future transportation network on the basis of declining traffic volumes as suggested by Dr Krumdieck.

Mr Wood

45 Mr Wood presents an assessment of historical rates of local and national traffic growth.[22] From this, he concludes that rates of traffic growth are slowing and he considers that this is consistent with trends observed overseas. These conclusions have not, however, been linked to the need for the Project.

46 In Table 1 of his evidence, Mr Wood presents averaged growth across a number of selected sites in the region, from which he concludes that traffic growth rates are falling.

47 I note that Mr Wood has analysed traffic data on SH1, SH2 and SH58, but it is not clear how his analysis has been undertaken, since some of his results seem inconsistent with the data shown by my **Figure 2**, which should have used the same data source. For example, in Table 2 of his evidence Mr Wood calculated that the traffic growth was negative (i.e. traffic volumes were falling) at MacKays Crossing between 2007 and 2010, but this is inconsistent with the traffic volumes shown by the NZTA records for this location (24,374 for 2007 and 25,012 for 2010).

48 Based on the graphs in my **Figure 2**, I consider that traffic demands in the SH1 corridor are continuing to grow and that although subject to short term fluctuations, the longer term trend is of consistent growth.

49 In my **Table 1** below, I have summarised growth rates for each of the four time periods quoted by Mr Wood in his Table 1. Whilst there is some agreement that rates of growth have declined from the levels seen in the period prior to 2000, the observed growth in the period since 2005 is higher than suggested by Mr Wood.

[22] Evidence of Kerry Wood, paragraphs 5-18.

Period	Growth per annum (as % of 2010 volume)		Mr Wood
	SH1 (4 sites)	SH58	
1995 – 2000	2.6%	2.3%	2.5%
2000 – 2005	1.1%	2.5%	1.1%
2005 – 2010	1.5%	0.8%	0.6%
2007 – 2010	1.2%	0.3%	0.2%
2008 - 2010	*3.3%*	*1.6%*	*n/a*
2009 - 2010	*2.6%*	*2.3%*	*n/a*

Table 1: Observed Traffic Growth, SH1 and SH58

50 The growth figure for the period 2007 – 2010 quoted by Mr Wood gives a misleading impression of growth for the most recent period, since traffic volumes in 2007 were higher than the years immediately before or after. In my **Table 1**, I have included (in italics) figures for the periods 2008 – 2010 and 2009 – 2010, which show strong and positive growth on both SH1 and SH58.

51 Together, this information indicates that traffic demands in the SH1 corridor are continuing to grow. Whilst the rates of growth over shorter term periods are subject to fluctuation, the longer term trend is of consistent growth. In my view, <u>any</u> growth in traffic volumes will result in an aggravation of the problems currently experienced in the corridor.

52 Mr Wood makes no mention of the effects of the economic recession, which has been a major factor responsible for lower traffic growth rates experienced in recent years. Such effects are cyclical in nature, and for this reason I consider it to be more appropriate to plan transportation provision on the basis of more reliable longer term trends.

Induced Traffic

53 Dr Chapman suggests that the increases in traffic activity predicted to occur as a result of the Project *'could be a gross underestimate of the increase in trips occurring over time if the TGP leads to a substantial drift north in the locus of new economic activity and settlement'*.[23] No evidence is provided in support of this claim, which appears to be entirely speculative.

[23] Evidence of Ralph Chapman, paragraph 40.

54 Ms Warren believes that the induced traffic effect will probably negate the benefits for car users over the medium to longer term. [24] She also considers that induced traffic effects will create impacts in other parts of the transport system and have impacts upon road users who will not benefit from the Project, giving as an example people who live in Pukerua Bay and work in Wellington.

55 The assessment I have described is clear that some induction of vehicle trips will occur as a result of the Project, and that this will arise primarily from a combination of mode transfer and redistribution. However, I expect this to be modest and much lower than the scale of effect suggested by Dr Chapman and Ms Warren.

56 In my view, Ms Warren has not understood the range of benefits which will arise from the Project. Firstly, these are not confined to car users but will also include commercial vehicles and bus movements within the corridor. Secondly, people who live in Pukerua Bay will benefit, from a much improved ability to access the coastal route from side roads and also reduced travel times once on the route.

Fuel Cost Growth

57 Mr Wignall expresses some surprise that the modelled effects of higher fuel cost growth scenarios are so 'insignificant', and suggests a need for more extensive testing around the effects of possible future fuel cost growth scenarios. [25]

58 As noted in my EIC[26], the fuel cost assumptions in the model are consistent with those applied by GWRC for the assessment of projects throughout the region.

59 The basis of the fuel cost sensitivity tests was described in the ATATE[27]. This also noted that the fuel costs are based upon longer terms trends rather that shorter-term spikes in prices. Further, the costs as modelled take account of the expected on-going improvements in vehicle fuel efficiency (which dampens the effect of rising retail costs).

60 **Figure 3** presents the change in observed traffic volumes on SH1 and SH58 (for the sites I described at paragraph 42) together with the change in retail fuel prices, for the period 1993 – 2010. This illustrates that even during periods of significant increases in retail fuel prices, the effect upon traffic volumes has been at most slight.

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[24] Evidence of Paula Warren, paragraph 85.

[25] Evidence of Don Wignall, paragraphs 8.1 – 8.3.

[26] EIC, paragraph 130

[27] ATATE, Section 5.1.6.

61 In this context, I consider that the tests which have been undertaken and reported are appropriate and give results which appear reasonable.

62 I note that if future traffic volumes were to be more sensitive to fuel price increases (as suggested by Mr Wignall), then the forecast volumes of residual traffic using the coastal route would be lower than modelled.

63 In reaching her conclusion regarding an expected decline in traffic volumes (which I have addressed at paragraphs 40 – 44 above), Dr Krumdieck also links this to issues of fuel supply, noting that *'the results of the modelling, not surprisingly, show that the trend for travel demand continues into the future in much the same way the trend was behaving prior to 2006 .... this neglects the severe oil price shock of 2008-2009 and the subsequent travel behaviour change seen in Wellington'.* [28]

64 As shown by **Figure 3**, traffic volumes rose by 10% in the period 2003 – 2010, despite fuel prices rising by 68% in the same period (and the effects of the economic downturn). Such a pattern is not consistent with the immediate outlook for declining VKT in response to fuel prices suggested by Dr Krumdieck.

65 The Project will generate significant benefits based upon current traffic volumes. Different growth forecasts only affect the rate at which further benefits will accrue and not the overall need for the Project.

66 The assertion by Dr Krumdieck that: *'a major, high-speed motorway only represents one choice, private motor vehicle'* [29] overlooks the fact that the Project simply represents the roading component of a balanced package which has provided for rail upgrades, and hence which ensures travel choices are available.

Greenhouse Gas Emissions

67 Dr Chapman notes that my EIC makes no reference to climate change or greenhouse gas emissions[30], and that the AEE does not identify a reduction in greenhouse gases as one of the benefits of the Project[31].

68 Greenhouse gas emissions were not evaluated, consistent with the assessment of other transportation projects and development proposals (such as a supermarket). I understand greenhouse gas

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28 Evidence of Susan Krumdieck, paragraph 10(a).

29 Evidence of Susan Krumdieck, paragraph 11.

30 Evidence of Ralph Chapman, paragraph 21.

31 Evidence of Ralph Chapman, paragraph 39

emissions are regulated by the government at a national level using tools such as the Emissions Trading Scheme. Accordingly, greenhouse gas emissions could be considered by the government when choosing which projects to bring forward, but they are not appropriately considered as part of an assessment of the effects of the Project upon the operation of the transportation network.

Cycling Issues

69 Mr Morgan suggests that because cycling will not be permitted along the Project, it will *'provide no benefits for cyclists travelling from north of MacKays Crossing to Kenepuru, other than by affecting traffic on the coastal highway'.*[32]

70 Even though an off-road cycle route is already available between Paremata and Paekakariki, its close proximity to the high volumes of traffic using SH1 results in a loss of amenity for cyclists. The removal of large volumes of traffic will, in my view, improve amenity and the general attraction of cycling in this area.

71 A similar effect has been evident in Tasman, where the opening of the Ruby Bay bypass in 2010 has led to a large reduction in traffic volumes using the former SH60, and an increased use of this route by recreational cyclists.

72 Mr Morgan suggests that the effects of increased traffic volumes on Kenepuru Drive upon cyclists do not appear to have been recognised in the AEE[33].

73 Considerable effort was made to ensure that existing cycle movements could be safely accommodated at the proposed intersection of the Kenepuru Link Road and Kenepuru Drive, resulting in a proposal for a grade-separated shared cycle / pedestrian path in the southbound direction. The package of traffic management measures to be developed for the Kenepuru Drive area will include consideration of the requirements for cyclists in this area.

74 The traffic increases on this section of Kenepuru Drive occur because traffic is expected to use the proposed Kenepuru Link in preference to other routes. These other routes (such as Main Road, Tawa) will experience reductions in traffic volumes which will be beneficial for cycle movements.

75 Mr Morgan suggests that the Project will not have a sufficient effect on traffic volumes to allow cyclists to use the same infrastructure as motorists at any point along the coastal route.[34]

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[32] Evidence of Patrick Morgan, paragraph 21.

[33] Evidence of Patrick Morgan, paragraph 25.

76 This appears to overlook the existence of a parallel cycle route between Porirua and Paekakariki, most of which (between Paremata and Paekakariki) does not require cyclists to share roadspace with general traffic.

77 Mr Morgan states that he is in agreement with the assessment in the AEE that the Project will not increase the modal share of cycling, and goes on to suggest a number of measures that he believes would contribute to an increased mode share.[35]

78 The ATATE[36] suggests that the Project will not have any noticeable effect upon the number of trips made by cycle. This is simply because there will be very few, if any, trips currently made by cycle which could be expected to use a private vehicle as a result of the Project. The ATATE does note however that the removal of traffic from the coastal route will create significant opportunities for improved cycling facilities which logically would lead to some increased uptake.

79 The measures suggested by Mr Morgan to increase the uptake of cycling are beyond the scope of the Project. In this respect, Porirua City Council (*PCC*) has a number of initiatives to encourage cycling in this area (and is working with Wellington City Council to develop an off-road route between Kenepuru and Tawa). Further, the Project will result in the establishment of an access track between Paekakariki and Battle Hill Farm Forest Park, which will be available for use by cyclists.

Pedestrian Issues

80 Ms Thomas suggests that there is no clear evidence for the view that trucks are likely to use the Project.[37]

81 In my view, it is likely that a high proportion of the trucks travelling between MacKays and Linden will use the Project, for the reasons described in my EIC[38]. The coastal route will continue to be used by truck movements between MacKays and northern Porirua (although the precise number is likely to be affected by the detail of the measures applied to the coastal route with the opening of the Project).

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34 Evidence of Patrick Morgan, paragraph 28.

35 Evidence of Patrick Morgan, paragraph 30.

36 ATATE, Section 4.9.3.

37 Evidence of Liz Thomas, paragraph 16.

38 Paragraphs 61 – 63.

82 Ms Thomas implies that the AEE is deficient as no analysis of pedestrian Level of Service (*LOS*) is provided, nor any assessment of effects on pedestrian modal share. [39]

83 In my view, a detailed LOS assessment is not required in order to conclude that a significant reduction in traffic volumes along the existing corridor will improve conditions for pedestrians, with shorter wait times to cross the road. As for cycle movements, pedestrian movements are not in competition for the trips which would use the Project and hence it is reasonable to conclude that there would not be any material effect upon pedestrian mode share. Similarly, it is reasonable to expect some increase in pedestrian activity within and between those communities in the SH1 corridor which will experience significant reductions in both traffic volumes and severance.

84 Ms Thomas states that: *'there is no data to show that pedestrians will experience a reduction in trip time as a result of the project'*[40].

85 Again, an analysis is not necessary. For example, it is reasonable to conclude that a reduction in traffic volumes through Pauatahanui Village of 47% as a result of the Project will lead to some reduction in walking times for parents and their children crossing the road to or from the primary school.

86 Ms Thomas identifies a number of '*notable severance issues for pedestrians'*. [41] All of the issues are existing and improvements in Pukerua Bay and Mana will follow from the removal of through traffic. For the Paremata – Porirua section, a parallel pedestrian (and cycle) route is currently available utilising Papakowhai Road, Okowai Road and a short off-road track.

87 Ms Thomas suggests that conditions are required to ensure that pedestrian facilities on the proposed link roads *'fully meet the standards in the LTNZ Pedestrian Planning and Design Guide 2007'*.[42]

88 I do not consider that conditions are required in this respect. This is because this document (for which the current version is dated October 2009[43]) has the status of a guide only. Section 1.2 of the document states '*The approaches to providing for pedestrians and the interventions adopted will depend on the circumstances at each location. With this in mind, the guide does not prescribe a single*

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39 Evidence of Liz Thomas, paragraph 17.

40 Evidence of Liz Thomas, paragraph 24.

41 Evidence of Liz Thomas, paragraph 27.

42 Evidence of Liz Thomas, paragraph 23.

43 Pedestrian Planning and Design Guide, NZTA (October 2009).

approach or intervention, but presents a variety, along with their advantages, disadvantages and limitations, and the circumstances when each would be most appropriate'. In my view, the proposals will be consistent with the intent of the guide, in terms of the provision of appropriate, safe and convenient pedestrian facilities.

Consideration of Alternatives

89 Ms Warren suggests that the construction of the Project as a two lane highway together with the retention of the coastal highway as a state highway is '*the obvious alternative*'.[44] She considers that such a solution would provide an alternative strategic route, which would provide the same or greater state highway capacity, ensuring that all users had a safe highway whilst providing similar opportunities for making the coastal highway multi-functional.

90 I disagree. The construction of the Project without passing opportunities throughout its length would result in driver frustration, lower safety standards, longer travel times and higher residual traffic volumes using the coastal route. This would reduce the ability to provide for improved cycle and pedestrian facilities along the existing SH1. Ms Warren's suggested alternative is also discussed in the rebuttal evidence of **Mr Nicholson**.

Rail Infrastructure

91 The evidence of Mr Vannisselroy appears to be based around a premise that improvements to the rail infrastructure would avoid any necessity to upgrade the road infrastructure.

92 This is based upon a simplistic view in which all trips could be easy accommodated by the rail network. In reality, rail cannot realistically meet the needs of many movements (for example, between Kapiti and the Hutt Valley), most freight movements or those movements for which flexibility is required in terms of travel times and/or the location of origins / destinations. In my EIC[45], I noted how the Western Corridor Plan hearing sub-committee recognised that each mode of transport had an important role to play and that improvements to the rail network would not replace the need for upgrades of the road network.

93 As such, I consider that the measures suggested in the evidence of Mr Vannisselroy are not relevant in the context of considering the effects of the Project.

94 Ms Warren speculates that the modal shift from rail may make the rail system less affordable, and suggests the outcome will be a '*poorly balanced network'*.[46] This is not supported by any evidence

[44] Evidence of Paula Warren, paragraph 76, 77.

[45] Paragraph 72.

[46] Evidence of Paula Warren, paragraph 86.

and is at odds with the findings of the Western Corridor Study, which was based upon extensive analysis and consideration of submissions. In my view, the Project will result in an appropriate balance of transportation infrastructure within the corridor, providing travellers with greater freedom to use the mode most convenient for their specific journey.

SECTION 42A REPORT

Existing Environment

95 Section 3.10 of the s42A report requests clarification as to whether the existing designation has been assumed to form part of the existing environment in the assessment of effects.

96 The transportation effects have been assessed as if the existing designation does not exist (since otherwise the incremental effects between the existing and proposed designations would be minimal).

Assessment of Information Provided

97 Section 4.2.3 of the s42A report addresses the adequacy of information provided to support the traffic and transport assessments.

98 With reference to the forecast increases in traffic volumes on the section of Kenepuru Drive between the proposed link road and the Rahia Street intersection, the report states that:

'We consider that monitoring of traffic volumes and delay times along this section of road will be necessary to identify potential adverse effects along this stretch of road, and that measures should be put in place to facilitate an alternative intersection design should this be required'.

99 Discussions have been undertaken with PCC regarding potential measures in this area. PCC is satisfied that sufficient scope exists to identify a solution in this area without a necessity to design a specific package at this stage. This is explained in the rebuttal evidence of **Peter Bailey** for PCC.

T. M. Kelly

Timothy [Tim] Martin Kelly
17 January 2012

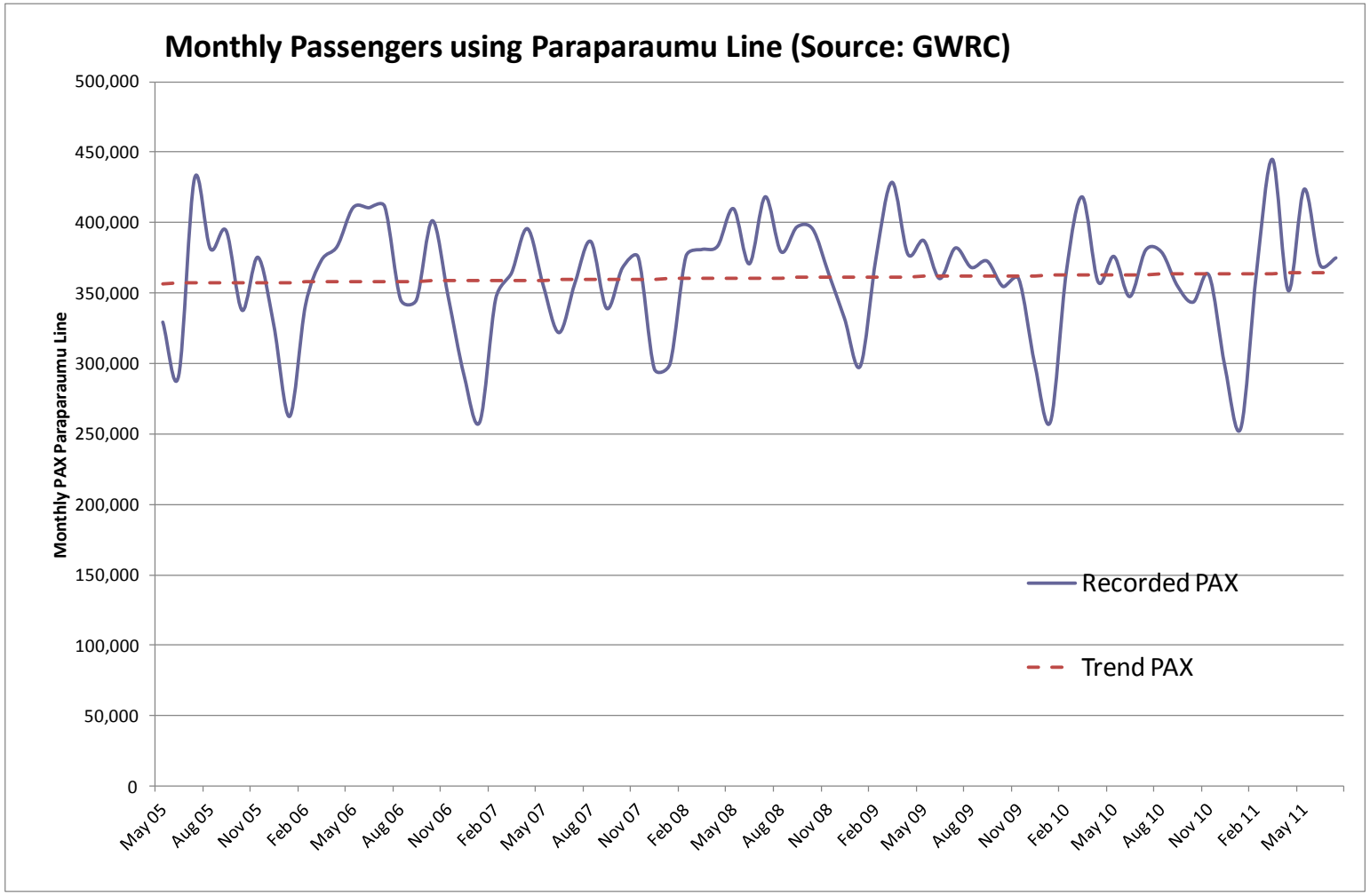

Figure 1: Rail Patronage, Paraparaumu Line 2005 – 2011

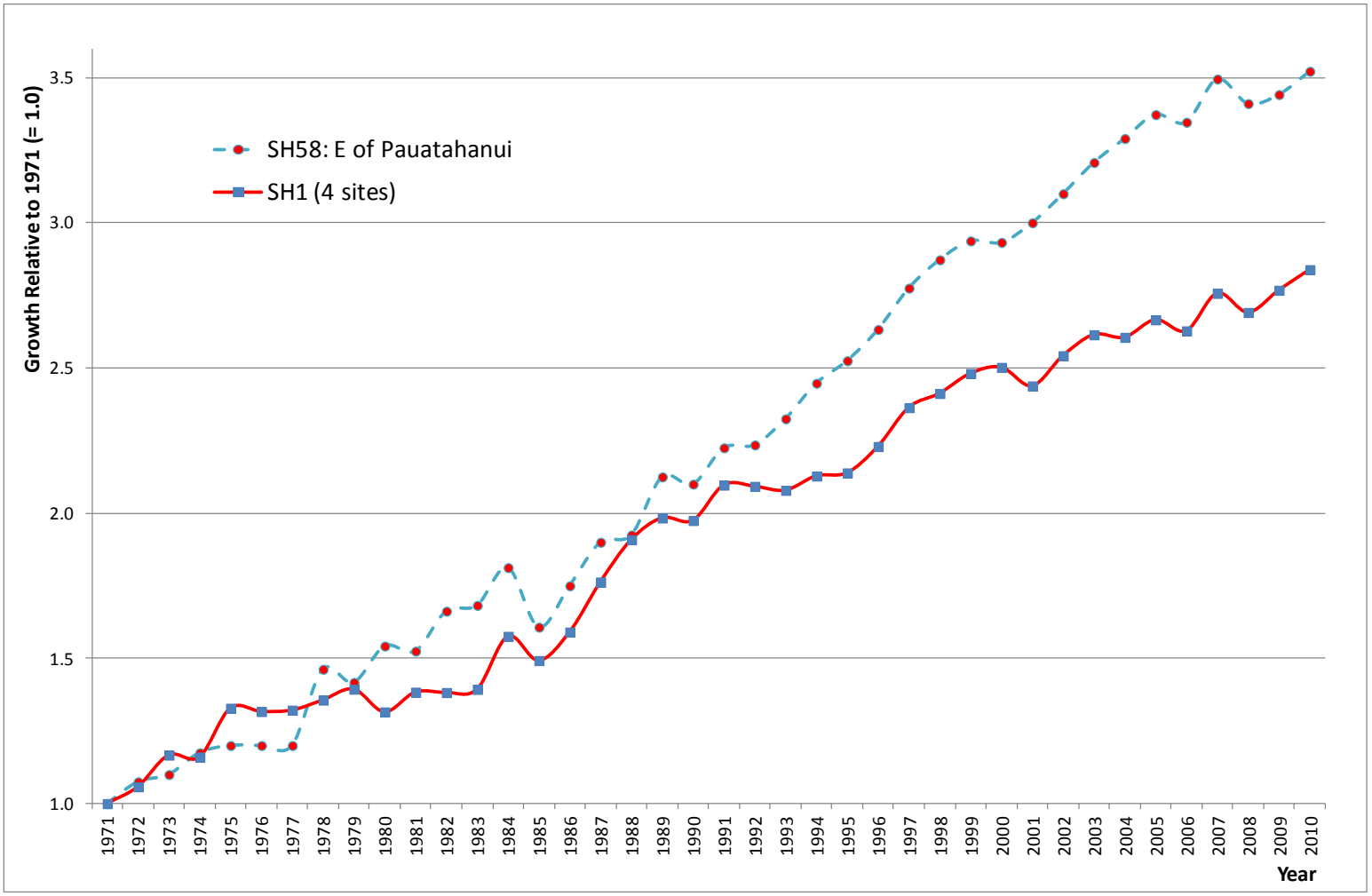

Figure 2: Observed Traffic Volume Growth, SH1 and SH58 1971 - 2010

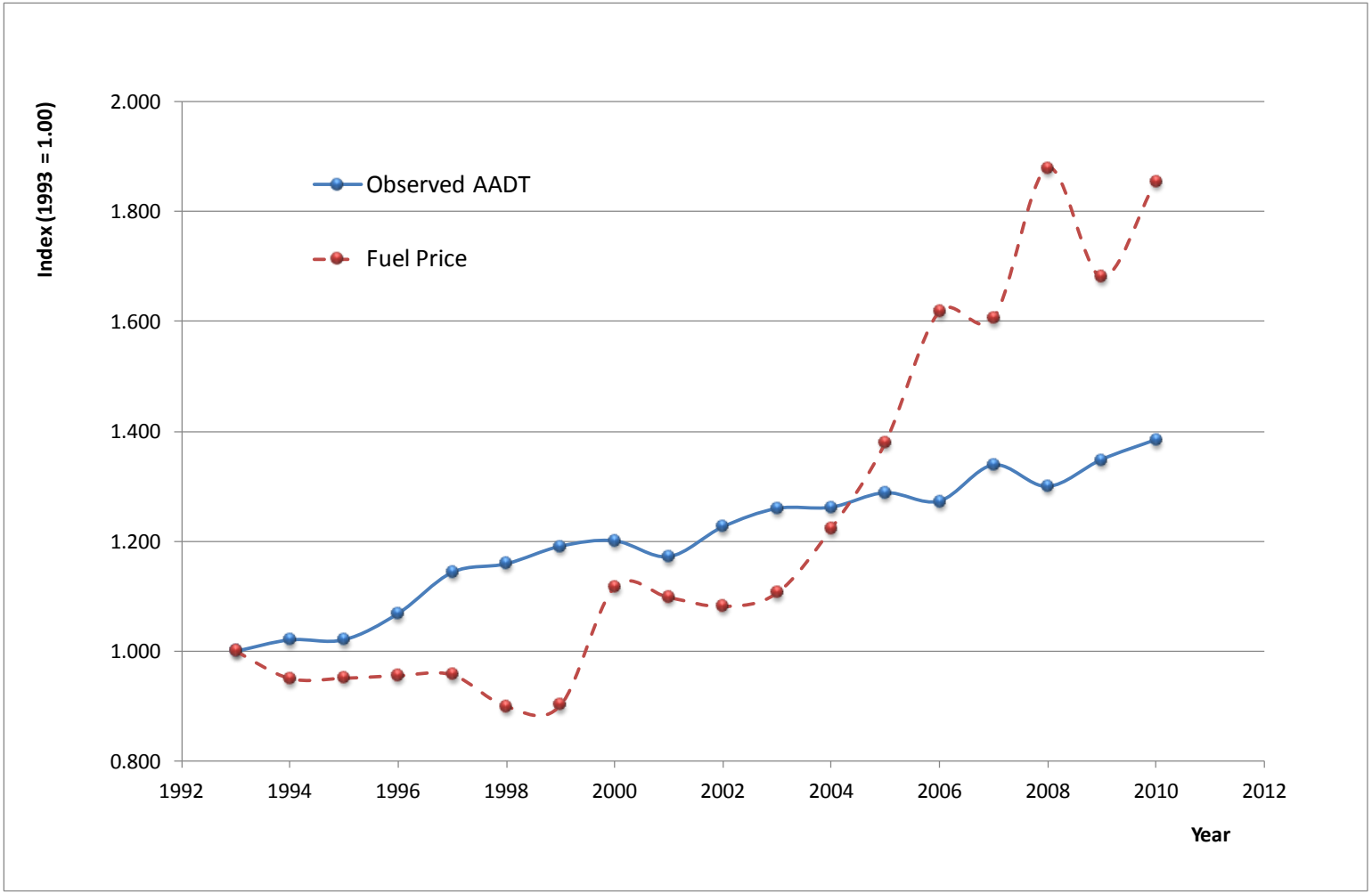

Figure 3: Change in Observed Traffic Volumes and Retail Fuel Prices, 1993 - 2010