

Before a Board of Inquiry
MacKays to Peka Peka Expressway Proposal

under: the Resource Management Act 1991

in the matter of: Notice of requirement for designation and resource consent applications by the NZ Transport Agency for the MacKays to Peka Peka Expressway Proposal

applicant: **NZ Transport Agency**
Requiring Authority

Statement of rebuttal evidence of **Stephen Hewett** (Temporary Traffic Effects) for the NZ Transport Agency

Dated: 25 October 2012

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
EVIDENCE OF SUBMITTERS	2
Mary Campbell-Cree (Raumati South Residents Association)	2
Adam Pekol (Save Kāpiti Incorporated).....	3
Donald Wignall (Kāpiti Coast District Council)	4
Mary Jane Rivers (Kāpiti Coast District Council).....	8
CONCLUSION	8
ANNEXURE A – PROPOSED DESIGNATION CONDITIONS REFERRED TO IN THIS REBUTTAL STATEMENT	9

STATEMENT OF REBUTTAL EVIDENCE OF STEPHEN HEWETT FOR THE NZ TRANSPORT AGENCY

- 1 My full name is Stephen Desmond Hewett.
- 2 I have the qualifications and experience set out at paragraphs 2 and 3 of my statement of evidence in chief, dated 4 September 2012 (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 respond to the evidence of:
 - 4.1 Mary Campbell-Cree, on behalf of the Raumati South Residents' Association Inc. (RSRA) (Submitter 0707);
 - 4.2 Adam Pekol, on behalf of Save Kāpiti Incorporated (Submitter 0505);
 - 4.3 Mary Jane Rivers, on behalf of Kāpiti Coast District Council (Submitter 0682); and
 - 4.4 Donald Wignall, on behalf of Kāpiti Coast District Council (Submitter 0682).
- 5 Consistent with my EIC, I have referred to the MacKays to Peka Peka Expressway Project as "the Project" in this rebuttal evidence.

EXECUTIVE SUMMARY

- 6 I have read all the statements of evidence from the submitters that raise construction traffic issues. The conclusions I reached in my EIC have not changed, with the exception of a minor amendment to proposed designation condition DC.17, in response to Mr Wignall's evidence.

EVIDENCE OF SUBMITTERS

Mary Campbell-Cree (Raumati South Residents Association)

- 7 In her evidence, Ms Campbell-Cree seeks conditions requiring construction vehicle movements to be kept to a minimum at Poplar Avenue, and if that was not possible, conditions be set to particular times of the day or week.¹ She states that "*The highest peak period for traffic on Poplar Avenue is the morning peak period. In addition to his recommendation, conditions must be placed for the morning peak period, when Poplar Avenue to SH1 is at its busiest (Monday –*

¹ Mary Campbell-Cree evidence – Page 5, Paragraph 15.

*Friday 7:30-9:00am). Conditions also need to be placed for the end of school period for Te Ra Waldorf School.*²

- 8 At paragraph 77 of my EIC, I recommended that construction traffic should avoid the Poplar Avenue intersection in the evening peak. This recommendation was based on the modelling results in Technical Report 33 – Assessment of Temporary Traffic Effects (TR33).
- 9 Table 6.2 in TR33 shows, in my view, that the impact of construction traffic and the closure of Leinster Avenue on the SH1/Poplar Avenue intersection in the morning and inter peak period including the school period is minimal, with average delays increasing by approximately one second.
- 10 In my opinion, the recommendation I made for controlling evening peak construction traffic is appropriate and sufficient, no further controls are necessary for morning or inter peak periods.
- 11 Ms Campbell-Cree’s evidence also requests *“that all the informal walkways be retained or acceptable alternatives provided, particularly during the construction phase for walkways from Main Road South (SH1) / Leinster Avenue to Matai Road and from Poplar Avenue to Raumati Estate. The current proposal and conditions do not appear to achieve that”*³.
- 12 Section 5.4 of TR33 acknowledges that a number of informal pedestrian and cycle routes are known to run through and across the proposed Expressway Alignment. These routes will not be available during construction, and will be effectively closed by the construction works. The project proposes to re-establish a formal walkway and cycle way between Poplar Avenue, Leinster Avenue, Matai Road and Raumati Road.
- 13 As outlined in my EIC at paragraph 82 pedestrian and cycle facilities will be maintained where safe and feasible. If not feasible, alternative routes will be provided.
- 14 In response to Ms Campbell-Cree, it is my opinion that pedestrians will need to use Poplar Avenue and Matai Road footpaths to walk to Raumati South Primary School, Kāpiti College and Te Ra Waldorf School, instead of the informal walkways. In my opinion, this is a safe and adequate option during the construction period.

Adam Pekol (Save Kāpiti Incorporated)

- 15 The evidence of Mr Adam Pekol raises the following issues that I will respond to:

² Evidence of Mary Campbell-Cree, page 6, paragraph 17.

³ Evidence of Mary Campbell-Cree, page 7, paragraph 23.

- 15.1 Why SH1/Kāpiti Road intersection was not modelled with construction traffic;⁴
- 15.2 My preference for a roundabout option over a signalised option for the SH1/Otaihanga Road intersection to mitigate construction traffic;⁵ and
- 15.3 Mitigation for pavement maintenance due to construction traffic.⁶

SH1/Kāpiti Road intersection

- 16 The estimated construction vehicle movements are shown in Table 5.4 of TR33. On Kāpiti Road, the expected maximum two-way construction trips are 150 per day, or approximately 13 per hour. This represents an increase of only 1% on existing traffic. No modelling was undertaken for the SH1/Kāpiti Road intersection as the expected maximum traffic flow would have, in my opinion, an insignificant impact on the intersection.

SH1/Otaihanga Road intersection

- 17 The traffic analysis in TR33 (Appendix A) shows the results for signalising the intersection and putting in a roundabout. I accept that the analysis shows that traffic signals would operate better than a roundabout with construction traffic during the PM peak. However, the roundabout option would operate satisfactory in the PM peak and better in the AM and inter peak periods. In addition, it is my view that a roundabout at this location would be safer than signals. Traffic signals on a high speed road environment are inherently problematic due to the difficulty making a decision to stop and the high severity outcomes that result when a collision occurs. In my opinion, the roundabout option would provide the best safety outcome while mitigating the increase construction traffic. It would also provide a better long term solution when the proposed Expressway is opened and this section of road becomes a local road.

Pavement maintenance

- 18 The proposed designation conditions DC.23, DC.24, DC.24A and DC.25 are appropriate to address the issue of pavement maintenance in my opinion.

Donald Wignall (Kāpiti Coast District Council)

- 19 Mr Donald Wignall's evidence raises a number of issues related to the traffic management during construction. I respond to these one by one below.

⁴ Evidence of Adam Pekol, page 16, paragraph 83.

⁵ Evidence of Adam Pekol, page 16, paragraph 84.

⁶ Evidence of Adam Pekol, page 16, paragraph 88.

20 I note that Mr Wignall has not suggested any amendments to the proposed designation conditions or the draft Construction Traffic Management Plan (CTMP).

Principles and uncertainty

21 Mr Wignall makes the comment that “*the principles to be adopted in preparing traffic management plans, which the Council is to receive prior to implementation or construction, are not sufficiently clear*”.⁷

22 In my opinion, the purpose of the CTMP and the Site Specific Traffic Management Plans (SSTMPs) is clear and there no need for additional principles to be added. It is also my view that the temporary traffic effects resulting from the Project can be satisfactory managed.

23 I have provided temporary traffic management advice to a large number of road construction projects and it is my experience that adverse construction traffic effects are best managed through management plans, where traffic conditions at the time of construction can be considered and effects adequately managed. The management plan process also allows methods of mitigation to be adapted as the Project progresses.

24 I draw attention to the fact that the Council will be consulted in the development of the management plans. Section 3.2.3 of the draft CTMP outlines the process for SSTMP approval and states that all plans will be sent to the Council for their approval.

Maintenance of safe and convenient access

25 Mr Wignall states that he concerned about “*the need to maintain safe and convenient access by all modes of transportation throughout the construction period, including maintaining two way access on both sides of the road for all modes of transport, avoidance of lane closures, and the limitation of any delays to acceptable levels*”.⁸ Mr Wignall also states that the CMPT should provide for 24 hour access for all emergency services.⁹

26 TR33 and my EIC describe the likely temporary traffic measures required to be used during construction. There are times where some roads will be reduced to single traffic flow with signals; however, this is only likely on the minor local roads affected by the Project such as Ngarara Road. All arterial routes will be maintained with two way flow. Roads will need to be closed and detours put in place when installing the bridge beams. These closures will mostly occur at night, as explained in my EIC.

⁷ Evidence of Donald Wignall, page 5, paragraph 3.14.

⁸ Evidence of Donald Wignall, page 5, paragraph 3.15.

⁹ Evidence of Donald Wignall, page 29, paragraph 8.18(c).

- 27 In my opinion, the certified CTMP will set out the procedures, requirements and standards necessary for managing the traffic effects during construction of the project so that safe, adequate and convenient facilities for local movements by all transport modes (pedestrian, cycle, vehicle) are maintained throughout the construction period.

Te Moana Road

- 28 Mr Wignall states that *"it is not clear if the level of construction traffic on Te Moana Road and through Waikanae to the west of the Expressway is necessary. The construction of a dedicated haul road from Ngarara Road which would have relieved these impacts appears to have been dismissed, as an option"*.¹⁰
- 29 Based on TR33 Table 5.4 construction traffic using Te Moana Road is expected to be approximately 350 two-way trips per day, an increase of approximately 4% on the existing two-way daily traffic flow. The impact will therefore be minimal and will be mostly related to the construction of the bridge. There will only be minimal constructions vehicle movements to the west of the Expressway and therefore, in my view, there is no need for an additional haul road. Safety issues can also arise with multiple vehicles using a haul road, for this reason it is not appropriate to have supply vehicles and haul vehicles both using the haul road.

Construction timing

- 30 Mr Wignall states that *"there is a need to minimise the length of time that construction impacts will be felt on local roads and in particular to provide a robust justification for the longer periods of disruption (12 months or more) on key local routes"*.¹¹
- 31 In my opinion, it is always in the best interest of the Project to minimise the impact of construction as temporary traffic management is a significant cost. My EIC gave time estimates for traffic management at the locations where the construction would impact on the road network. I note that the only locations expected to take more than 12 months are at the Wharemauku Stream Bridge and Kāpiti Road interchange, where construction may extend to 18 months, and the Peka Peka interchange that will be staged over 3 years.

Modelling

- 32 Mr Wignall states that *"apart from junction analysis in the AEE (TR33) the assessment of traffic proposal does not seem to have any analytical basis. For example, the construction impacts on Kāpiti Road do not appear to have been analysed or modelled"*.¹²

¹⁰ Evidence of Donald Wignall, page 26, paragraph 8.6.

¹¹ Evidence of Donald Wignall, page 26, paragraph 8.7.

¹² Evidence of Donald Wignall, page 26, paragraph 8.8.

33 As I explained above, the expected construction traffic movements on Kāpiti Road will in my view be minimal, contributing to only a 1% increase in traffic volumes. In my opinion, any impacts at the intersections are well within the link capacity of Kāpiti Road and the other roads carrying construction traffic. The impact of construction traffic on Kāpiti Road would be minimal.

34 Modelling was undertaken for the intersections where the increase in construction traffic appeared to be significant. This is addressed in section 5.2 of TR33.

Otaihanga Road

35 Mr Wignall commented that "*the principles to be adopted in operating and managing construction related activity on Otaihanga Road are not sufficiently clear*".¹³

36 Paragraph 78 to 80 of my EIC address the issue of construction effects on Otaihanga Road, access to the construction yard, and maintenance of Otaihanga Road. I disagree that the principles, effects and mitigation proposals are unclear.

Restitution and maintenance

37 Mr Wignall states at his paragraphs 8.19 and 9.15 that restitution proposals need to be included in the CTMP. As set out in my EIC, proposed designation conditions DC.24 and DC.24A very clearly address these issues.

Conditions proposed by Ms Emily Thomson

38 To support Mr Wignall's evidence, KCDC's planner Ms Thomson has recommended amending DC.17 and inserting a new condition as discussed below.

39 Ms Thomson has suggested amending designation condition DC.17 (new wording underlined):

- a) *The draft Construction Traffic Management Plan (CTMP) submitted with the application (dated xxxx 2012) shall be updated, finalized and submitted to the manager for certification, at least 15 days prior to commencement of construction of the project.*
- b) *The certified CTMP shall confirm the procedures, requirements and standards necessary for managing the traffic effects during construction of the project so that safe, adequate and convenient facilities for local movements by all transport modes (pedestrian, cycle, vehicle) are maintained throughout the construction period.*

40 In my opinion, the amended condition DC17 proposed by Ms Thomson is acceptable.

¹³ Evidence of Donald Wignall, page 5, paragraph 3.16.

- 41 Ms Thomson has suggested a new designation condition:

The requiring authority shall ensure that the Otaihanga construction yard shall be designed and layout, including any fencing, so that it does not impede access to the efficient operation of any existing activities on the landfill site including waste management, dog training and car club activities.

- 42 The new condition proposed by Ms Thomson responds to Mr Wignall's concern at paragraph 9.13 of his evidence, in which he considers that there should be an alternative access solution for dog club members and continuous and safe access to the landfill. **Mr Andrew Goldie's** EIC paragraph 76 outlines that alternative continuous and safety access would be provided for the residents to the Otaihanga Resource Recovery Facility, landfill and dog club. Therefore, I do not consider the new condition is necessary.

Mary Jane Rivers (Kāpiti Coast District Council)

- 43 At paragraph 6.12 of Ms Rivers' evidence, she states that more detailed attention and analysis is required in relation to construction vehicle and traffic movements in relation to schools, Saturday sports venues, Paraparaumu Town Centre, Waikanae Town Centre and the streets that will be predominantly used by construction vehicles.
- 44 The CTMP and SSTMP process outlined in my EIC will take account of the impact of construction activities on the road network that may affect the above activities raised by Ms Rivers and, in my opinion, will address Ms Rivers' concerns.

CONCLUSION

- 45 In my opinion, the traffic effects during construction can be appropriately managed and mitigated to an acceptable level based on the methodology outlined in the CTMP. The effects are not anticipated to be greater than or unusual compared with other major road construction projects completed in the Wellington region in the last ten years.
- 46 In my opinion, the proposed management plans will satisfactorily avoid, mitigate or remedy the temporary traffic effects of the Project, which will be limited to the duration of construction. Co-ordination will be required between the NZTA, affected parties and the Road Controlling Authorities (KCDC) during the preparation of the SSTMPs.



Stephen Hewett

25 October 2012

**ANNEXURE A – PROPOSED DESIGNATION CONDITIONS
REFERRED TO IN THIS REBUTTAL STATEMENT**

Construction Traffic Management Plan	
DC.17	<p>a) The draft Construction Traffic Management Plan (CTMP) submitted with the application (dated XXX 2012) shall be updated, finalised and submitted to the Manager for certification, at least 15 working days prior to commencement of construction of the Project.</p> <p>b) The certified CTMP shall confirm the procedures, requirements and standards necessary for managing the traffic effects during construction of the Project <u>so that safe, adequate and convenient facilities for local movements by all transport modes (pedestrian, cycle, vehicle) are maintained throughout the construction period.</u></p>

Note: Underlined text put forward by Ms Thomson for the Kāpiti Coast District Council. I consider this amendment to be acceptable.