

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 **Andrew Goldie** (Construction Manager – MacKays to Peka Peka Expressway) for the NZ Transport Agency

Dated: 26 October 2012

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STATEMENT OF REBUTTAL EVIDENCE OF ANDREW GOLDIE FOR THE NZ TRANSPORT AGENCY

- 1 My full name is Andrew Trevor Goldie.
- 2 I have the qualifications and experience set out at paragraphs 4-6 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 I confirm that I am authorised to give this evidence on behalf of the NZ Transport Agency (*NZTA*).
- 5 In this statement of rebuttal evidence, I respond to the evidence of:
 - 5.1 **Loretta Anne Pomare**, on behalf of herself, (submitter number 309);
 - 5.2 **Mary Campbell-Cree**, on behalf of Raumati South Residents Association (*RSRA*), (submitter number 707);
 - 5.3 **Brian Arthur Handyside**, on behalf of Greater Wellington Regional Council (*GWRC*), (submitter number 684);
 - 5.4 **Sharon Joanna Lee**, on behalf of *GWRC*, (submitter number 684);
 - 5.5 **David Roil**, on behalf of Waikanae On One (*WOO*), (submitter number 514); and
 - 5.6 **Peter Francis Callander**, on behalf of *GWRC*, (submitter number 684).
- 6 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 construction management matters for this hearing.
- 7 Consistent with my *EIC*, I have referred to the MacKays to Peka Peka Expressway Project as "the Project" in this rebuttal evidence.

EXECUTIVE SUMMARY

- 8 I have read all of the statements of evidence provided by submitters in relation to my area of expertise. The evidence prepared by the submitters has not caused me to depart from the opinions expressed in my *EIC* and I re-confirm the conclusions reached in my *EIC*.

- 9 I do, however, make some points of clarification in response to parts of the evidence of some submitters.
- 10 With the exception of G.11, I do not propose to change any of the conditions outlined in my EIC as a result of evidence prepared by submitters.

EVIDENCE OF SUBMITTERS

Loretta Anne Pomare (submitter 309)

- 11 Paragraph 102 suggests avoiding the use of the proposed Expressway route as a haul route. As set out at paragraphs 28-29, 75.3 and 75.4 of my EIC, the use of the Expressway is to minimise the volume of construction traffic on local roads, to minimise the disturbed area within the designation and to enable the transport of materials across the Waikanae River.
- 12 At paragraph 103, Ms Pomare suggests that night-time work is expected over a 9 month period for the construction of the Waikanae River Bridge and Te Moana Road Bridge. As outlined at paragraph 75.1 of my EIC, night-time work at these locations is expected to be limited to only the placement of bridge deck beams. These operations are only expected to last for a number of days during the overall duration of the bridge construction, and most of the work will be carried out during the day. It should also be noted (as outlined in paragraph 63 of my EIC) that night-time work is not actually expected at the Waikanae River Bridge. Night-time operations will only be necessary if safe access cannot be maintained to the Waikanae Christian Holiday Park during installation of bridge beams.
- 13 In response to paragraph 113, damage to Ms Pomare's property is unlikely. Construction operations will be executed in accordance with the consent conditions and management plans, which will ensure that measures are taken to avoid damage to property. Proposed designation condition DC.16 also provides a complaints procedure that will be followed should a complaint be received alleging adverse effects relating to the exercise of the designation, including the construction of the Expressway.
- 14 In response the paragraphs 131-133 of Ms Pomare's statement, as set out at paragraph 75.2 of my EIC in relation to the Te Moana Road/Puriri Road area, the expected hours of work are 7am-6pm Monday to Saturday, except for the placement of bridge beams, which would occur during night-time hours. Reducing working hours, as suggested by Ms Pomare, would serve to prolong the overall construction duration. Two weeks' notification of works to be carried out and duration of works is acceptable and in accordance with proposed conditions DC.12 and DC.13.

Mary Campbell-Cree on behalf of RSRA (submitter 707)

- 15 At paragraph 19, Ms Campbell-Cree raises concerns about the increased construction traffic at Poplar Avenue, should peat be removed from site at this location. I note the following to clarify paragraph 39 of my EIC:
- 15.1 It has been assumed that all the peat will be able to be re-used on site. This is because the peat will be stockpiled and dried out within the designation, adjacent to the construction site, and then used in landscaping and in the formation of acoustic barriers/bunds. It is therefore unlikely that peat will need to be removed from site.
 - 15.2 My evidence (paragraph 39) refers to the removal of excess peat and lists potential areas to where the peat could be removed. The intent of the statement is to acknowledge that there is a risk (given that further investigations are necessary to confirm earthworks volumes) that there may be excess peat to remove after the bulk has been re-used on site.
 - 15.3 This application does not seek consent for any of these dump sites (Bright's Cleanfill, Otaihangā Landfill or Waikanae Oxidation Ponds) through the Board of Inquiry process. If any (or all) of these sites are required, a separate consent will need to be obtained.
 - 15.4 As noted at paragraph 39 of my EIC, Poplar Ave will only be used to transport peat if it to be disposed of at Bright's Cleanfill. As the disposal of peat from the construction site is likely to be minimal, and the fact that only one of the three possible disposal sites would result in additional traffic movements down Poplar Avenue, I consider that the disposal of peat will result in a small number of additional traffic movements on Poplar Avenue. As I have discussed below, I consider that it is possible that Leinster Avenue could be used as an access point to the Poplar Avenue-Raumati Road construction area. If this alternative is considered appropriate, this would mean that no trucks hauling peat would drive down Poplar Avenue.
- 16 In response to paragraph 20, I note that the access route at 200 Main Road is not included in the designation. Two options have been considered for the access point for the Poplar Avenue-Raumati Road construction area: i.e., use of Poplar Avenue or use of Leinster Avenue, following its closure to the public. These options provide a more direct access point to and from SH1.
- 17 The use of Leinster Avenue is outlined in section 2.3.2 of my Technical Report (Technical Report 4 – Construction Methodology

Report). **Annexure B** shows the location of both the Poplar Avenue and Leinster Avenue access points.

Brian Arthur Handyside on behalf of GWRC (submitter 684)

18 At paragraph 17, Mr Handyside refers to the total earthworks quantity for the Project and notes that 700,000m³ of the total quantity will comprise peat. For clarification, the 700,000m³ volume I referred to is the estimated total of volume of peat present on the site that will require treatment: i.e., earthworks and preloading. The estimated volume of peat earthworks is 400,000m³.

19 At paragraph 52.10 of his evidence, Mr Handyside recommends that condition G.11 specify training for a minimum time, and that the level the training is directed to be stipulated. He also recommends the following addition to the condition:

The consent holder shall to the satisfaction of the Manager, establish a process and programme for training of new staff members joining the project team after the initial training is delivered for the duration of the Works, and for any staff moving to a new CESC area.

20 In response to the matters raised by Mr Handyside I have recommended changes to this condition as outlined in **Annexure A**. However, I do not believe that a minimum time for the training needs to be stipulated, provided the content of the training is adequately covered. The amendments sought to condition G.11 are also discussed in the rebuttal evidence of **Mr Graeme Ridley** and I concur with his findings.

Sharon Joanna Lee on behalf of GWRC (submitter 684)

21 In response to paragraphs 8 and 9, I refer to paragraph 89 of my EIC. I therefore propose a change to the designation, as shown in **Annexure C**. This matter is also discussed by **Mr Robert Schofield**.

22 In response to paragraphs 13 and 14, reinstatement works to land disturbed during construction, but not within the permanent road designation, will be undertaken in consultation with GWRC. This consultation will ensure that consideration is given to GWRC's plans for the area under the Sustainable Land Use Plan for Queen Elizabeth Park at the time of the reinstatement works.

David Roil on behalf of WOO (submitter 514)

23 Paragraphs 12.4 and 30 of Mr Roil's evidence comments on the extraction of 1 metre depth of silt, as outlined in 86.5 of my EIC. I agree that the nature of the low-lying areas between Waikanae and Waimeha are variable and consist of saturated sand and silts extending to depths of 17-18 metres. This information informed the construction methodology set out at paragraph 86.5 of the EIC. The 1 metre of material refers to the estimated depth of excavation into

the sands/silts that will be required to reach a suitable formation layer for commencing the embankment construction.

- 24 At paragraph 49, Mr Roil reproduces paragraph 86 of my EIC and follows this with a discussion regarding the earthworks methodology in the Waikanae River – Te Moana Road section of the Project. I believe my methodology to be suitable, as it has been informed by the work undertaken by **Mr Gavin Alexander** and **Ms Ann Williams**.
- 25 In response to paragraph 50 of Mr Roil’s statement of evidence, I requested information regarding the experiences of Goodman Contractors Limited (*Goodmans*) in the Puriri Road area. I have attached the response Goodmans provided to me as **Annexure D**. The letter describes the various earthworks projects that Goodmans have completed in this area.
- 26 I agree with paragraphs 52 and 53 of Mr Roil’s evidence. While an outline methodology for the embankment construction has been considered, further investigations and the subsequent further design work that are planned for the Project will enable the sequence and depth of unsuitable material excavation to be refined, management methods for the control of groundwater to be further developed, and the selection of suitable embankment foundation materials.
- 27 Paragraph 55 suggests contingency plans for flood events in the vicinity of the Waikanae River. Drawings CV-CM-501 & 507 show the locations of the construction yard areas on both banks. These areas have been selected above flood level to ensure that equipment and materials are not stored in the flood plain and that a point of refuge is available in a flood event (also noted in section 2.2.2 of Technical Report 4 – Construction Methodology).
- Peter Francis Callander on behalf of GWRC (submitter 684)**
- 28 In response to paragraph 114 of Mr Callander’s evidence, the volume and timing of water usage has been calculated based on the outline construction programme and estimated water required for construction operations, which includes dust suppression to earthworks. The estimated water usage for construction operations is attached in **Annexure E**.

CONCLUSION

- 29 I re-confirm the conclusions reached in my EIC. I have read all of the statements of evidence provided by submitters in relation to my area of expertise. The evidence prepared by the submitters has not caused me to depart from the opinions expressed in my EIC, although some points of clarity have been made in response to some submitters.

- 30 With the exception of G.11, I do not propose to change any of the conditions outlined in my EIC as a result of evidence prepared by submitters.



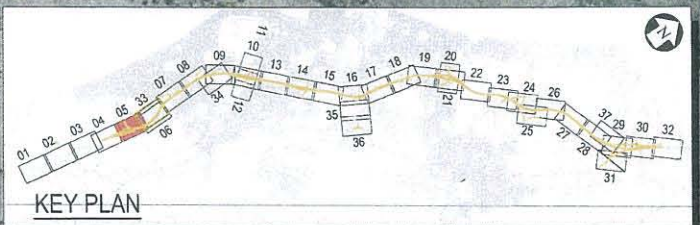
Andrew Goldie

26 October 2012

**ANNEXURE A – SUGGESTED AMENDMENTS TO PROPOSED
RESOURCE CONSENT CONDITION G.11**

	Staff Training
G.11	<p>The consent holder shall ensure that earthworks contractors <u>personnel</u> earthworks contractors responsible for supervising <u>earthwork site staff i.e. formen, supervisors and managers</u> shall undergo environmental awareness training, required by the CEMP. The training shall occur prior to the commencement of any earthworks stage and shall be given by a suitably qualified and experienced person certified by the Manager to deliver a practical on-site training session. Specifically, contractor shall be briefed as follows <u>training shall include, but not be limited to:</u></p> <ul style="list-style-type: none"> a) Contractors likely to be involved in the construction and maintenance of erosion and sediment control devices shall receive training on the performance standard <u>Design details for the to be achieved by the erosion and sediment control devices and associated methodologies. and</u> b) Contractors likely to be involved in the construction <u>Details of any stream diversion or other diversions, other in-stream works or works in wetlands, shall be briefed on briefing on the values of the stream and wetlands, the objectives of for stream and culvert design, and construction erosion and sediment control measures, the requirements of native fish for fish passage, and the sensitivity of the receiving environment to sediment discharges.</u> c) Contractors <u>For supervisory and management personnel likely to be involved in any works involving vegetation clearance shall be briefed briefing on the values of any significant areas of vegetation that are to be retained, and the methods that shall be used to identify and protect them during construction; and</u> d) All contractors shall be briefed <u>Briefing on the requirements of Te Ati Awa ki Whakarongotai and Takamore Trust for cultural ceremonies to occur before the commencement of works.</u> <p><u>The environmental awareness training shall include a process and programme for training of new staff members joining the project team, and for any staff moving to a new CESC area within the Project. This environmental awareness training shall continue for the duration of the Project earthworks.</u></p>

**ANNEXURE B – LOCATION OF POPLAR AVENUE AND
LEINSTER AVENUE ACCESS POINTS**



LEGEND: SCHEME PLANS (CV-SP)

- PROPOSED DESIGNATION
- SHARED CYCLE / WALKWAY ON ROAD
- PROPOSED NOISE BUND
- 2.0 NOISE WALL HEIGHT (m)
- PROPOSED NOISE WALL
- PROPOSED RETAINING WALLS / BRIDGES
- STORMWATER WETLAND
- OFFSET FLOOD STORAGE AREA
- CHIPSEAL ROAD PAVEMENT
- OGPA ROAD PAVEMENT
- ASPHALT ROAD PAVEMENT
- SITES OF SIGNIFICANCE TO IWI
- NZHPT REGISTERED WAHI TAPU AREA
- QEII COVENANT LAND

NOTE: FOR ADDITIONAL FEATURE INFORMATION READ IN CONJUNCTION WITH "MAIN FEATURE LEGEND", SEE ZZ-GE-001.



NOTES:

Original Scale (A3)	1:2000
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1	AEE LODGEMENT	NRN	15.03.12
Revision	Amendment	Approval	Date



Project: **MACKAYS TO PEKA PEKA EXPRESSWAY**

Title: **PROPOSED EXPRESSWAY SCHEME PLAN SHEET 5 OF 37**

Status: FOR CONSENTING

Document ID: M2PP-AEE-DWG

Drawing No: **CV-SP-105**

Rev: 1

ANNEXURE C – PROPOSED CHANGE TO THE DESIGNATION



LEGEND

- PROPOSED EXPRESSWAY CONSTRUCTION DESIGNATION
- STORMWATER PIPE
- STORMWATER WETLAND
- OFFSET FLOOD STORAGE AREA IN WETLAND FORM
- OFFSET FLOOD STORAGE AREA

FOR APPROVAL
NOT FOR CONSTRUCTION

D	SCHEME ASSESSMENT	B.J.F	K.H	NRN	18.11.11	Original Scale (A1)	Design	NRN	07.07.11	Approved For SAR
C	SCHEME ASSESSMENT	B.J.F	K.H	NRN	14.11.11	1:2500	Drawn	D.W.W	07.07.11	
B	SCHEME ASSESSMENT	B.J.F	K.H	NRN	30.08.11	Reduced Scale (A3)	Design Checker	NRN	18.11.11	N.R.NANCEWELL
A	FOR PRICING	B.J.F	D.G.S	NRN	07.07.11	1:5000	Design Checker	K.H	18.11.11	Date 18.11.11
No.	Revision	By	Chk.	Appd.	Date		* Refer to Revision 1 for Original Signatures			

NZ TRANSPORT AGENCY
Mackays to Peka Peka

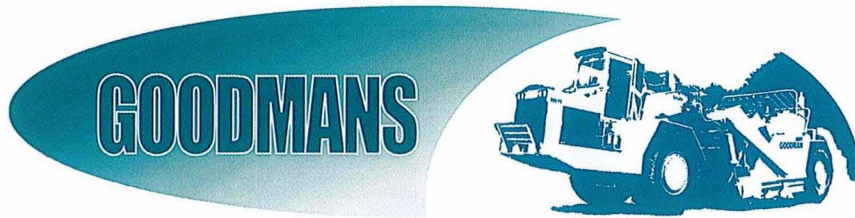
Project: **SH1 MACKAYS TO PEKA PEKA EXPRESSWAY**
RP 1012/0.00 TO 1023/5.00

Title: **DESIGNATION PLAN**

Document Set:	M2PP-SAR-DWG	Rev.	
Drawing No.:	CV-SP-052	Rev.	D

Document No. M2PP-SAR-DWG-CV-SP-052.DWG

**ANNEXURE D – LETTER FROM GOODMAN'S CONTRACTORS
LIMITED**



12 October 2012

TO WHOM IT MAY CONCERN

I, **Richard Philip Goodman**, have had considerable experience at both moving dirt and drainlaying in the area of Waikanae Beach and in particular Puriri Street, over the last forty years.

Fairway Oaks. This was an earthworks job for Colin Smith Contracting Limited in early 2000. Considerable quantities of sand were moved with no adverse effects from the weather. The wind did blow but the sand was covered as necessary to prevent sand blowing on to neighbouring properties.

- The Peat encountered was at the base of the sand Hill and was approximately 1 to 2 m deep. This was excavated and sand was compacted back to form building platforms.
- The water was left in place and no pumping needed.

Puriri Street. This was a deep sewer up to 5m deep pumping station, water supply and building a right of way, roading and concrete work etc.

- The water table was approx 1 meter down with the material made up of wet silts and sand.
- The trench was dewatered using a 6" pump with spares spaced at 1.5m centers 6m deep. The water was pumped onto existing paddocks and dispersed. A trench shield was required to stop the sides collapsing.

14a Puriri Street Lakes. RV Cooper built these lakes. Murray now works for Rick. This was on Ammerman property and Murray built two recreational lakes. Murray shifted approximately 3000 cm of wet blue silt material and in doing so built up the surrounding area to create two recreational ponds.

- Ammerman Property consisted of Blue silts and river gravels with a high water table.
- Artesian water was found in this property and had to be channeled to stormwater outlets thru neighboring properties.

Christian Holiday Park. This job was to excavate peat and replace with sand from an adjoining hill to form a rugby ground/play area.

- The peat was up to 2 m deep , excavated and respread on the playing field and sand hill.
- The water table was unaffected as all work was completed without pumping.

Kapanui Gas Line. We were subcontractors to McConnell Dowell and assisted with putting the gas line through the Te Moana Road/Puriri Street/Christian Holiday Park and Waikanae river crossing. Goodmans helped with access over the site. Unfortunately we were not on site during the excavation but do remember a high watertable with river silts making up the soil type.

Goodman Contractors Limited, 4 Anne Street, Waikanae, 5036, New Zealand
Phone: 0064 4 293 7176 Fax: 0064 4 293 7136
E-Mail: office@goodmans.gen.nz



Other Goodman personnel have completed the following work in the same areas.

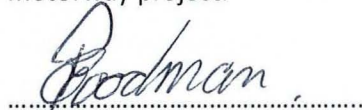
East end of Puriri Street on Greenaway Road. This work was carried out on Brian Cardiff's property. Three house foundations dug down 1.5m to water level and backfilled with sand. Soakpits dug to 6m deep and backfilled with rock.

Takamore Trust Land. Exploratory test pits between El Rancho and Takamore land. These were to a depth of 1.5m and were in peat.

Carson Contracting. Reinstatement of gas pipeline.

El Rancho. Digging of ponds in El Rancho.

Kapiti Coast District Council. Digging of paddocks and swamp in El Rancho for sound bunds for the motorway project.



R.P Goodman
Director

ANNEXURE E – OUTLINE WATER USAGE PLAN

