

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 evidence of Mary Patricia O’Keeffe (Archaeology) for the NZ Transport Agency, Porirua City Council and Transpower New Zealand Limited

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Dated: 16 November 2011

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REFERENCE: John Hassan (john.hassan@chapmantripp.com)  
Nicky McIndoe (nicky.mcindoe@chapmantripp.com)

**STATEMENT OF EVIDENCE OF MARY PATRICIA O'KEEFFE FOR  
THE NZ TRANSPORT AGENCY, PORIRUA CITY COUNCIL AND  
TRANSPower NEW ZEALAND LIMITED**

**QUALIFICATIONS AND EXPERIENCE**

- 1 My full name is Mary Patricia O'Keeffe.
- 2 I am a consultant archaeologist, and have run my own consultancy (Heritage Solutions) for the last fifteen years. Prior to this I have worked as an archaeologist or heritage professional with the New Zealand Historic Places Trust (*HPT*) and the Department of Conservation. I hold a Bachelor of Arts and a Post Graduate Diploma in Anthropology from Otago University, and a Masters of Literature in Anthropology from the University of Auckland.
- 3 I am current secretary and past president of ICOMOS New Zealand<sup>1</sup>, a member of the New Zealand Archaeological Association (*NZAA*), a member and previous New Zealand Councillor for the Australasian Institute of Maritime Archaeology and am the NZAA representative on the Royal Society's Social Science Committee.
- 4 I have worked on a number of other previous and current roading projects including; the Wellington Inner City Bypass, Kapiti Coast's Western Link Road, the MacKays to Peka Peka Expressway, and the Wellington Tunnels Duplication Project.
- 5 I have also worked on other infrastructure projects such as Meridian's West Wind windfarm and Mill Creek windfarm, OnTrack's rail developments on the Kapiti Coast and in the Wellington railyards, and development of the Kapiti Airport. In addition, I have worked on numerous urban and rural developments such as the construction of the Wellington Regional Hospital, the refurbishment of Government House and the Telecom Building site in inner Wellington and many rural subdivisions on the Kapiti Coast.
- 6 On 15 August 2011 the NZ Transport Agency (*NZTA*), Porirua City Council (*PCC*) and Transpower New Zealand Limited (*Transpower*) lodged Notices of Requirement (*NoRs*) and applications for resource consent with the Environmental Protection Authority (*EPA*) in relation to the Transmission Gully Proposal (*the Proposal*).
- 7 The Proposal comprises three individual projects, being:
  - 7.1 The 'NZTA Project', which refers to the construction, operation and maintenance of the Main Alignment and the Kenepuru Link Road by the NZTA;

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<sup>1</sup> ICOMOS is the International Council of Monuments and Sites.

- 7.2 The 'PCC Project' which refers to the construction, operation and maintenance of the Porirua Link Roads by PCC<sup>2</sup>; and
- 7.3 The 'Transpower Project' which refers to the relocation of parts of the PKK-TKR A 110kV electricity transmission line between MacKays Crossing and Pauatahanui Substation by Transpower.
- 8 My evidence is given in support of all three projects. For the purposes of referring to the NZTA Project and the PCC Project collectively in this evidence, I will use the term "Transmission Gully Project" (and hereafter *the TGP* or *the Project*).
- 9 I am familiar with the area that the Proposal covers and the State highway and local roading network in the vicinity of the Proposal.
- 10 I am the co-author of the archaeological technical report<sup>3</sup> which formed part of the Assessment of Environmental Effects (AEE) lodged in support of the NZTA and PCC Projects. I co-authored this report with my colleague Victoria Grouden from Capital Heritage Consultancy. I also authored the Addendum to Technical Report 20: Assesment of Archaeological Effects which relates to the Transpower Project.
- 11 I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Consolidated Practice Note (2011), and I agree to comply with it as if this Inquiry were before the Environment Court. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### **SCOPE OF EVIDENCE**

- 12 My evidence will deal with the following:
- 12.1 Background and role in relation to the Project;
- 12.2 The methodology used for the archaeological assessment;
- 12.3 The Project's effects on identified archaeological sites (both during construction and operation);
- 12.4 Response to submissions;

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<sup>2</sup> The Porirua Link Roads are the Whitby Link Road and the Waitangirua Link Road.

<sup>3</sup> Technical Report 20.

12.5 Proposed conditions (including methods for managing unexpected archaeological finds); and

12.6 Conclusions.

### **SUMMARY OF EVIDENCE**

- 13 There are no recorded archaeological sites within the proposed Project designations or the areas affected by the Transpower Project. While, there are recorded archaeological sites within the wider vicinity of the proposed Project designations, (of both Maori and European origin), none will be directly affected by the Project. I am confident that indirect effects on these sites can be managed during the Project's construction and operation.
- 14 Conditions can be employed on the designations and resource consents so as to successfully manage any unexpected discoveries of archaeological material during construction.

### **BACKGROUND AND ROLE**

- 15 My role in relation to the Project was to undertake, with the co-author, an assessment of the archaeological sites and features that could be affected by construction of the proposed roads. Drawing on that work I undertook an assessment of the archaeological effects of the Transpower Project also.
- 16 My evidence has a relationship to the Assessment of Built Heritage effects (Technical Report 19) which is discussed in the evidence prepared by **Mr Bowman**, and to the Cultural Impact Assessment (Technical Report 18) prepared by Te Runanga o Toa Rangatira for Ngati Toa, which is discussed in the evidence of **Ms Pomare**.
- 17 My evidence is connected to these other disciplines because some of the archaeological sites in the vicinity of the Project are built heritage structures that pre-date 1900AD (and thus fulfil the definition of "archaeological site" contained with the Historic Places Act 1993 (*HPA*))<sup>4</sup>. Some sites are also of pre-European Maori origin, and I understand that these have cultural and spiritual values of significance to the iwi, in addition to their archaeological values.

### **METHODOLOGY FOR ASSESSMENT**

- 18 To undertake the archaeology assessment, Ms Grouden and I:
- 18.1 Sourced data on the locations and types of known archaeological sites in the vicinity of the Project area;

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<sup>4</sup> Section 2.

- 18.2 Gathered documentary data on the history of the area from pre-European times (noting land use and major activities);
- 18.3 Considered data on archaeological surveys that had already been undertaken in the vicinity of the Project area;
- 18.4 Walked or drove the entire NZTA Project route; and
- 18.5 Visited the areas with higher density of recorded archaeological sites to check for further unrecorded archaeological sites.

### **EFFECTS ON IDENTIFIED ARCHAEOLOGICAL SITES IN THE VICINITY OF THE PROJECT AREA**

- 19 The archaeology of the Project study area can be divided into three broad themes: Maori occupation and subsistence; military history; and European farming. Aspects of these three themes are contiguous in time and place.
  - 20 Archaeological sites have been recorded in three main locations within the vicinity of the Project area: on the coast at Paekakariki, at Battle Hill, and at the Pauatahanui Inlet.
- Paekakariki**
- 21 Archaeological sites at Paekakariki include pre-European Maori middens, pits, pa and terraces, reflecting the rich resources available on the coast. In addition, there is a military theme at Paekakariki with sites including the locations of the three World War Two (WW2) military camps (Camps Russell, McKay and Paekakariki), which housed United States (U.S.). Marines during the war. The sandy beach and rural surrounds of Queen Elizabeth Park close to Wellington were an ideal training ground for U.S. troops preparing to fight in the Pacific during WW2.
  - 22 During the course of fieldwork investigations for the Project, a structure associated with these military camps was located and recorded. It is a brick petrol storage tank, located in the Tararua foothills to the east of the camps. This feature is not "archaeological" in the sense of the definition within the HPA, as it postdates 1900AD. However, this feature does have high historical values, through its relative rarity and historical associations. I understand that the Main Alignment's location was moved to allow for the permanent retention of the tank. **Mr Bowman** discusses this feature further in his evidence.
  - 23 None of these sites identified at Paekakariki are within the designation footprint; the brick petrol storage tank is beside but outside it, and I understand that construction activity will be

managed so as to minimise chances of the feature being damaged by construction works.

### **Battle Hill**

- 24 Archaeological sites at Battle Hill, adjacent to the Paekakariki Hill Road, include sites associated with the military engagement in August 1846 between the European militia and Maori forces under Te Rangiahaeata.
- 25 Te Rangiahaeata had built a temporary pa on a razorback ridge near the summit of Battle Hill. On the morning of 6 August 1846, Government forces attacked and tried to storm the pa. Battle ensued, with Te Rangiahaeata's forces eventually retreating to Pauatahanui, and ultimately further north.
- 26 Sites at Battle Hill include earthworks associated with Te Rangiahaeata's defensive location on the ridge, graves of soldiers and settlers at the foot of the ridge, and the campsite of the Government troops, at the foot of the ridge. There is also an historic quarry, an historic woolshed and a goldmining site in the vicinity. None of these sites are within the footprint of the designations, nor close enough to be adversely affected during the Project's construction period.

### **Pauatahanui Inlet**

- 27 The archaeological sites around the Pauatahanui Inlet are of both Maori and European origin. There are numerous midden sites located around the edge of the Inlet, reflecting the richness of the sea-based resources available to the Maori occupants.
- 28 There are also European houses and churches, reflecting the strategic importance of this location as a new settlement. In addition, St. Albans Church is built on the remains of Matai-Taua, a defended pa built by Te Rangiahaeata.
- 29 None of these sites are within the footprint of the designations, or sufficiently close so as to be adversely impacted in archaeological terms.
- 30 St. Joseph's Church, which was built in 1878 and thus is an archaeological site in terms of the definition in the HPA, and the midden immediately beside it are about 200m from the proposed road alignment; however, the church and midden are elevated on a rise above the alignment, which reduces the potential for direct archaeological impact during the Project's construction or operation.
- 31 However, there may still be some indirect effects on the Church. These include dust effects and effects associated with vibration. **Mr Bowman** discusses the potential impacts on the Church further in

his evidence, supported by **Dr Chiles'** evidence on vibration and **Mr Fisher's** evidence on management of construction dust.

### **Summary of effects on archaeological sites**

- 32 There are no known archaeological sites within the proposed designation footprints or in the close vicinity of the Proposal that will be directly adversely affected during the Proposal's construction. Neither will there be adverse effects on sites in the close vicinity during operation of the Proposal.
- 33 I consider that there is a low probability of further, unknown archaeological sites being discovered during the construction period. This is because:
- 33.1 Previous archaeological surveying and documentary research suggests a strong preference for coastal locations for pre-European Maori and early European settlers, based on the richness of coastal resources for subsistence, and ease of access along the coast;
  - 33.2 The vast majority of recorded archaeological sites within the wider Wellington/Kapiti Coast region are located on or very near to the coast;
  - 33.3 The majority of the proposed Proposal area is well inland; and
  - 33.4 Where the route is near the coast or harbour edge additional archaeological site visits have been made to check for the possibility of additional unrecorded sites being present.

### **RESPONSE TO SUBMISSIONS**

- 34 Only one submitter, the HPT, specifically addressed archaeological issues in their submission (submission 33). HPT generally concur with the recommendations and findings of the archaeological assessment prepared for the Project.
- 35 HPT make specific recommendations in relation to St Joseph's Church and the brick petrol storage tank.
- 36 I recommended that an archaeological management plan be written to manage the effects of construction on St Joseph's Church and the adjacent midden (condition NZTA.9); HPT suggest instead these effects be managed through a Site Specific Environmental Management Plan. The outcome of either plan would in fact be the same: the identification of risks to heritage and methods to avoid or manage them. I agree with HPT's position that "one 'go to' plan would avoid confusion and provide surety as to the management of the site during construction and beyond". My preference would be to call this an archaeological management plan, as the focus of the

plan is managing the archaeological heritage. However, I note that the definition of "historic heritage" in the RMA includes archaeological sites and archaeological qualities. Accordingly, I am comfortable with this plan being called an Heritage Management Plan (*HMP*), which will encompass all the mitigation and management requirements for St Joseph's Church, both during and after construction.

- 37 A similar point is made by HPT in relation to the fuel tank. Again, HPT suggests that an archaeological management plan may not be the most appropriate management tool, as the structure is built heritage as opposed to archaeological, and again suggest a different management plan. As I have noted above, this structure is not "archaeological" in the sense of the definition of the HPA. Again, I am comfortable with this plan being called an HMP, which will be a stand-alone document addressing the needs of this heritage structure. It is important that these heritage recommendations are not buried in some other, larger plan where they could easily be overlooked.

#### **PROPOSED CONDITIONS**

- 38 Despite the fact that no known archaeological sites will be adversely affected by construction of the Proposal, I recommend that the NZTA takes a precautionary approach, and applies for an authority under section 12 of the HPA to modify, damage or destroy archaeological sites. This is because of two factors: the proximity of recorded archaeological sites to the roading alignment and the potential presence of subsurface sites, which, by their nature, cannot be seen or anticipated from the ground surface.
- 39 PCC and Transpower do not need to apply to HPT for an archaeological authority because none of the work being undertaken by them impacts in any way on known, or suspected, archaeological sites.
- 40 I therefore have recommended, (and these have been included as part of the Project application documents), that the following conditions be attached to the NZTA's designations:
- 40.1 A condition requiring that an archaeological management plan (now to be called a HMP) be prepared, detailing processes and contacts, in the event of potential archaeological material being encountered (condition NZTA.9). This HMP would contain similar conditions to an accidental discovery protocol, but is formalising the situation to a more detailed degree, given that the type and nature of recorded sites in the wider vicinity is known, and so processes in anticipation of finding unrecorded types of these sites can be specified; and



40.2 A condition requiring that an accidental discovery protocol be prepared and implemented, in the event of accidental discovery of archaeological artefacts (condition NZTA.10). That protocol shall include:

- (a) Training procedures for site crew and contractors;
- (b) People to be notified in the event of an accidental discovery;
- (c) Procedures if material is encountered (including ceasing of work in the vicinity of the find); and
- (d) Procedures to be undertaken before works can recommence.

41 I have also recommended that a similar accidental discovery protocol condition is attached to the PCC designations (PCC.9) and to the NZTA and PCC resource consents, as a general condition (NZTA G17 and PCC G37).

42 Although outside the scope of this proceeding, I have also recommended that the following matters be included as conditions imposed on any archaeological authority that may be granted by the HPT to the NZTA:

- 42.1 That an archaeologist be on call for all surface clearing, trenching, construction or other invasive subsurface groundwork required for all aspects of road construction;
- 42.2 If potential archaeological material is encountered work must cease immediately in the vicinity of the find, and the archaeologist and iwi (if appropriate) be contacted. Work should not recommence until the archaeologist indicates it is appropriate to do so. The archaeologist should be given the opportunity to examine any archaeological deposits disturbed by the development work, and to make recommendations for further detailed examination of these deposits where appropriate;
- 42.3 A full archaeological briefing should be given to all site crew, including all subcontractors as to the possible nature of potential archaeological material, and procedures if material is encountered;
- 42.4 Artefacts and material uncovered and recorded during site clearing work should be lodged with an appropriate repository. Any associated costs for processing, cataloguing and conservation of artefacts and materials will be the responsibility of the authority holder.

I note that designation condition NZTA.9 states that the proposed HMP shall be consistent with any conditions imposed on any relevant HPT authority.

- 43 With these conditions in place, I consider all reasonable steps have been taken to anticipate and manage unexpected archaeological material.

#### **CONCLUSIONS**

- 44 In conclusion there are no archaeological based reasons as to why the proposed roads should not be constructed, provided that an authority under the HPA is applied for, and the conditions of the authority issued are fulfilled.
- 45 While there are archaeological sites within the vicinity of the proposed designation footprints, no known sites will be adversely affected in a direct sense. There is a low possibility of unseen unrecorded sites being discovered within the designation footprints, which results in my recommendation that a precautionary approach be adopted.



Mary Patricia O'Keefe  
16 November 2011