

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

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 Gary Martin Rae (Social Effects) for the NZ Transport Agency, Porirua City Council and Transpower New Zealand Limited

Dated: 10 November 2011

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

**STATEMENT OF EVIDENCE OF GARY MARTIN RAE FOR THE NZ
TRANSPORT AGENCY, PORIRUA CITY COUNCIL AND
TRANSPower NEW ZEALAND LIMITED**

QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Gary Martin Rae.
- 2 I am a resource management planner with 27 years experience. I have a Bachelor of Science (University of Canterbury), and a Diploma in Town Planning (University of Auckland). I am a full Member of the New Zealand Planning Institute (*NZPI*), and Chair of the Nelson/Marlborough Branch of the NZPI.
- 3 I am a Director of Incite, a resource and environmental management firm, and have been based in the Nelson office since 2001. I was employed as the Regional Planner with the (former) Transit New Zealand in the Christchurch Office between 1996 and 2001.
- 4 My experience in this field includes the preparation of Assessment of Environmental Effects (*AEE*), and resource consent applications and Notices of Requirement (*NoRs*), including social effects assessments associated with more than 20 State highway projects since 1993. Those projects include the Nelson transportation corridor project; four-laning of parts of the inner city loop road in Christchurch (Travis Road); and numerous other road realignment and intersection upgrade projects in urban and rural areas of Canterbury and Nelson. I have also been involved in the assessment of social effects associated with development of policy for urban policy reviews in Nelson, particularly in relation to the effects from exposure of residents to noise effects.
- 5 On 15 August 2011 the NZ Transport Agency (*NZTA*), Porirua City Council (*PCC*) and Transpower New Zealand Limited (*Transpower*) lodged *NoRs* and applications for resource consent with the Environmental Protection Authority (*EPA*) in relation to the Transmission Gully Proposal (*the Proposal*).
- 6 The Proposal comprises three individual projects, being:
 - 6.1 The 'NZTA Project', which refers to the construction, operation and maintenance of the Main Alignment and the Kenepuru Link Road by the NZTA;
 - 6.2 The 'PCC Project' which refers to the construction, operation and maintenance of the Porirua Link Roads by PCC¹; and

¹ The Porirua Link Roads are the Whitby Link Road and the Waitangirua Link Road.

- 6.3 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.
- 7 My evidence is given in support of all three projects. In this evidence, when referring to the NZTA and PCC Projects collectively, I shall use the term "Transmission Gully Project" (and thereafter *the TGP* or *the Project*)
- 8 I am familiar with the area that the Proposal covers and the State highway and local roading network in the vicinity of the Proposal.
- 9 I am the co-author of the Social Impact Assessment (SIA) (Technical Report 17) which formed part of the AEE lodged in support of the Project. I also co-authored the social effects assessment for the Transpower Project (Addendum to Technical Report 17).
- 10 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

- 11 My evidence will deal with the following:
- 11.1 Background and role in relation to the Proposal;
 - 11.2 The existing social environment;
 - 11.3 Description of the methodology undertaken;
 - 11.4 A summary of consultation undertaken;
 - 11.5 Effects of the Project and the Transpower Project (both construction and operation) on the social environment (including benefits);
 - 11.6 Response to submissions; and
 - 11.7 Conclusions.

SUMMARY OF EVIDENCE

- 12 The main conclusions reached in my evidence are as follows:
- 12.1 The Project affects a wide range of communities, with varied demographic make-up, along the proposed route;
 - 12.2 There are significant social and economic benefits at the regional level, in terms of improved route security, accessibility and connectivity, traffic safety, reduced traffic in the coastal communities, and regional economic growth and development opportunities;
 - 12.3 These benefits are widely recognised, and have resulted in, overall, a good level of support for the Project at a regional level;
 - 12.4 There are a range of potential adverse effects on local communities from construction activities, such as from noise, reduced air quality (arising from dust) and traffic safety. These will mainly be addressed through construction management plans, which include a range of measures to assist communities in knowing what works are happening, when they will occur and who to contact if there are any problems. These measures include advising affected people of scheduled works in neighbourhoods; providing contact points for complaints; and monitoring the effects of construction activities;
 - 12.5 Construction activity is expected to also bring some benefits to local communities, principally through increased spending and employment opportunities;
 - 12.6 The potential adverse effects on local communities once the Project is operational include noise and vibration, air quality, character and visual amenity, safety, community severance and access to community facilities;
 - 12.7 It is acknowledged that the more socio-economically deprived sectors of the community may be more vulnerable to such effects. However, these effects will be addressed through a range of mitigation measures, as described in the specialist technical reports, including retention of important walkways and cycle-ways linkages and access to regional parks, and through localised landscape and urban design plans to be developed for affected neighbourhood areas;
 - 12.8 There are a number of on-going positive or beneficial effects for communities once the Project is operational. These include improved access to places of employment and to local

and regional facilities (e.g. the Waitangirua community can make use of the new Waitangirua Link Road and the wider Transmission Gully route to better access potential places of employment in the Hutt Valley and elsewhere); and from the reduced traffic and congestion particularly in the coastal communities (e.g. along Mana Esplanade);

12.9 The Transpower Project involves a minor relocation of existing lines and pylons, with social effects which are little different from the effects of the existing line; and

12.10 The conditions recommended to be placed on the consents and designations for these projects are appropriate to address the effects on local communities.

BACKGROUND AND ROLE

13 My role in the Project has been to manage the preparation of the SIA in conjunction with Charlotte Crack, a senior planner from Beca. I also co-authored the Assessment of Social Effects for the Transpower Project.

14 As a member of the Project's planning team I participated in consultation and stakeholder engagement. I also took part in several workshops on urban design and noise, and had input into the technical reports prepared for those disciplines.

15 My evidence is an overview of the social effects of the Project at a regional and local scale, and in terms of construction and operational effects. My evidence draws on effects identified by technical experts in the air quality, traffic, noise, urban design and landscape disciplines. Complementary social evidence is provided by **Ms Lawler**, PCC's General Manager of Strategy and Planning, which focuses on PCC's plans and aspirations for community development and also the effects on PCC communities along the existing SH1 and the proposed route. My evidence on the Transpower Project focuses on the construction and operational effects on communities, drawing on effects identified by technical experts in visual and public safety impacts.

EXISTING SOCIAL ENVIRONMENT

16 The SIA uses a study profile area with 6 'Community Areas'. The location of these community areas is shown in my **Figure 1** below. These are based on the main concentrations of dwellings and local community facilities within the Project area.

Community Area 1 – Paekakariki

- 19 This area includes the coastal settlement of Paekakariki, and several rural-residential and horticultural properties near MacKays Crossing, which lies at the northern end of the proposed Main Alignment route. It has a population of 1,600 people, with low growth forecasted. There is a state primary school and two early childcare facilities in Paekakariki township. Queen Elizabeth Park and the MacKays Crossing Wildlife Reserve and Wetlands are the most significant regional reserves in this area.
- 20 The predominant ethnic group is European, followed by Maori. This community area has a deprivation rating of 6 on the Deprivation Index.² It has high levels of educational attainment, employment levels and public transport use relative to the other community areas.

Community Area 2 – Rural Communities

- 21 In this area the Main Alignment traverses through an area of mainly rural land. The existing transmission lines and the lines as relocated also pass through this area along the same general alignment. It is sparsely populated, with a grouping of rural-residential dwellings near Paekakariki Hill Road. There is very limited community infrastructure or resources. However, this area has the regionally significant Battle Hill Farm Forest (*BHFF*) Park, which is used for many forms of recreation and is of special significance to tangata whenua.
- 22 This area has very low levels of deprivation, with high incomes and employment. The population is very mobile with a high proportion of commuters.

Community Area 3 – Pauatahanui and Whitby

- 23 The Main Alignment runs to the east of the main urban settlements of Pauatahanui and Whitby, and to the west of rural-residential communities at Flightys Road and Bradeys Road, near State Highway 58 (*SH58*). The existing transmission lines and the lines as relocated also pass through the northern part of this area, along the same general alignment, and through to SH58.
- 24 There is a wide diversity of community infrastructure and resources, concentrated mainly at the Whitby Village centre and at Pauatahanui Village. As **Ms Lawler** explains, there are village plans in place for both of these areas and the Porirua Development Framework shows further comprehensive developments planned for the area around the Whitby shops.³ Further residential and rural-residential growth

² This is a rating index of 1 – 10, with a rating of 10 representing the most deprived 10% of areas within New Zealand.

³ Porirua Development Framework, Porirua City Council, August 2009, section 8.1.4.

may occur in the Pauatahanui area (PCC is preparing a structure plan, which will advise on the form of development in this area).

- 25 This area has high median incomes and a low score on the Deprivation Index. It is characterised by relatively high numbers of children, with numerous schools and pre-school facilities, but also fairly high numbers of elderly residents.
- 26 This area is strongly represented by resident associations and environmental protection groups. It contains the Pauatahanui Wildlife Reserve and the Pauatahanui Inlet, and several recreation reserves and walking tracks, indicative of a very active community. This area also has very high mobility, with a very high percentage of workers commuting to Wellington City.

Community Area 4 – Eastern Porirua

- 27 The Main Alignment skirts to the east of the settlements of Waitangirua and Cannons Creek and other communities in Eastern Porirua. The Belmont Regional Park is a significant reserve in this area. There are a considerable number of playgrounds, sports clubs and grounds. The most obvious change to this community area will be the proposed Waitangirua Link Road which will feed directly into the Waitangirua shopping centre area.
- 28 Much of the area has a Deprivation Index rating of 10, but with some variations (e.g. at Ranui Heights where employment levels and median incomes are considerably higher). The main ethnic groupings are Pacific Island, Maori and then European. There are a large proportion of ethnic based schools, churches, and other community groups in this area. This area also has a high proportion of residents in rental accommodation, and with very low car ownership.
- 29 Much of this area has experienced a recent decline in population. PCC planning policy aims to intensify Cannons Creek, and redevelopment of state housing stocks is also proposed. Village plans are in place, and a new community park has recently been developed at the Waitangirua shopping centre. There is substantial worker commuting to Wellington City, with relatively high use of public transport.

Community Area 5 – Linden and Tawa

- 30 This area is located at the southern end of the route and includes Linden, Tawa and Central Porirua. The proposed Main Alignment commences at State Highway 1 (SH1) near Linden, and then it runs along foothills mainly to the east of these communities. The proposed Kenepuru Link Road will bring traffic into and out of the Kenepuru area at Kenepuru Drive.

- 31 This area has a wide range of deprivation ratings, ranging from Porirua Central (with a rating of 10) and Greenacres and Takapu (with a rating of 1). It has a large number of community facilities and resources, notably schools and other educational establishments. Linden School is in very close proximity to the existing SH1, which will be widened at the southern end of the proposed Main Alignment. There are a number of residents' groups, and these were active when the existing Transmission Gully designations were considered back in the 1990s.
- 32 This community area has a high level of worker commuters into Wellington City, particularly from the Takapu census area unit (i.e. to the south of this community area). The communities closer to Porirua centre rely more on public transport, and walking and cycling than other parts of the area.

Community Area 6 – Coastal Communities

- 33 This area includes the settlements of Pukerua Bay, Plimmerton, Mana-Camborne, Paremata and Papakowhai. Communities in this area are not directly adjacent to the Project route, and are more affected by the existing SH1 route, which has a daily traffic volume of 32,000 vehicles at Mana Esplanade.
- 34 Overall, the area has low deprivation, typically ranging between ratings of 1 and 2. There are a large number of community facilities and resources and there are village plans in this area. Residents groups are strong and active. Rail is the key element of public transport in this area, and overall there is a high level of commuting to Wellington City. PCC is currently planning for considerable additional urban growth within these communities through its PCC Development Framework.

METHODOLOGY

- 35 The SIA takes account of the principles embodied in the International Association for Impact Assessment (*IAIA*), as described in Chapter 5 of the SIA. Broadly these are to seek improvement of social well-being of the wider community affected by planned interventions, whilst being aware of the differential distribution of impacts among different groups, including vulnerable groups in the community.
- 36 The framework for the SIA is generally based upon the steps shown in Figure 17.2 of the SIA. These are: describing what is proposed; scoping the geographic area; developing a profile of the affected communities; identifying likely social impacts; assessing the effects; mitigation measures; and managing and monitoring the effects.
- 37 The analysis was undertaken on a regional and local scale. At the regional scale the key considerations are in relation to transport,

accessibility and connectivity; economic growth and development; and sustainable and healthy communities. At the local scale the main considerations were in relation to attitudes, expectations and aspirations, wellbeing and way of life, and culture. The local level effects were assessed in relation to effects prior to construction; during construction and post-construction.

- 38 The SIA work has been carried out as part of an integrated project development and assessment process. The SIA team has been part of a wider Project team of specialists in their fields working together to consult with affected communities and to develop mitigation measures to minimise concerns identified by those communities.
- 39 The SIA acknowledges there are existing designations in place for a route through Transmission Gully. However, as the current Project is different in several respects, the SIA has treated this as an entirely new project.
- 40 However, it is notable that due to the long history of Transmission Gully, there is a very high public awareness of the Project and of the existing designations. Whilst there has been uncertainty as to when it may ultimately be constructed, there has for some time been widespread knowledge that there is going to be a major transportation route through this general area. This is reinforced in several regional and district planning documents which show the route and refer to it in their development frameworks. **Ms Lawler's** evidence states that in Porirua City, "The eventual construction of the Project is a key assumption in Council core planning documents" and that "this demonstrates Council's support for the Project overall, and the contribution of the Project to the aspirations of local communities".⁴
- 41 I consider this background, and community involvement in the development of this Project, has influenced community attitudes to the current Project. It is seen more as a variation to the previous route rather than as an entirely new project, and that this has been a factor in how the communities have perceived the significance of any impacts on them.

SUMMARY OF CONSULTATION

- 42 The consultation which has been carried out by the SIA team is outlined in Section 5.3.2 of Technical Report 17 and in Technical Report 22. In summary, this has involved:
- 42.1 Reviewing the outcomes from previous consultation and public submissions on the existing designations;

⁴ Statement of evidence of Moira Anne Lawler, 18 November 2011, paragraph 19.

- 42.2 Participating in the wider consultation carried out by the Project team, including attending the Project open days;
 - 42.3 Separate consultation with Regional Public Health, and with NZ Police; and
 - 42.4 Separate meetings with PCC's staff and consultants to discuss planning and policy documents, and to discuss the outcomes from PCC's consultation on the proposed Porirua Link Roads, as discussed in **Mr Bailey's** statement of evidence.
- 43 Results from the wider project consultation are contained in Part F of the AEE and in Technical Report 22. Those reports address consultation with tangata whenua, directly affected parties, key stakeholders, regulatory authorities, and with interested parties and the wider public.
- 44 A conclusion of Technical Report 22 is that the consultation undertaken to date shows a good level of community support for the Project, acknowledging that some residents of the community in close proximity to the route (e.g. at Paekakariki Road and at Flightys Road) are not supportive of the Project and are affected in ways that require specific mitigation. Of relevance to assessing social impacts, the consultation undertaken also shows that:
- 44.1 There is an on-going commitment to engagement between the NZTA and Ngati Toa, recorded in a Memorandum of Understanding (*MoU*). Ngati Toa has also prepared a Cultural Impact Assessment Report (Technical Report 18);
 - 44.2 No concerns were raised from the providers of emergency services (Fire Service, Police, Ambulance services);
 - 44.3 Housing New Zealand Corporation, which owns almost 48% of all housing stock in eastern Porirua has expressed no concerns with the Project;
 - 44.4 The Tawa Community Board consulted widely with Tawa residents but it raised no specific concerns;
 - 44.5 The only Residents Associations within the Project area to express any particular interest were the Pauatahanui Residents Association (whose members had widely differing views about the merits of the Project but with no specific concerns about the design) and the Waitangirua Providers Forum (which initially requested a meeting but did not respond to subsequent invitations);

- 44.6 Other than Tawa College, and Linden School (which is directly affected), none of the 34 schools in the Project area expressed any interest or concerns with the Project; and
- 44.7 Business groups throughout the Project area were invited to attend the Open Days, and no concerns emerged from that process.
- 45 Consultation with the communities affected by the Porirua Link Roads was managed by PCC, as discussed in **Mr Bailey's** evidence. The respondents to the consultation exercise were mostly supportive or neutral towards the PCC Project.
- 46 The SIA team's own consultation resulted in feedback obtained from the open days, and from meetings with Regional Public Health and NZ Police.
- 47 From all of this consultation the following conclusions on social effects are able to be drawn:
- 47.1 The route is recognised as being of strategic importance; and transport benefits will arise from the new linkages;
- 47.2 Economic benefits, in terms of employment opportunities and increased spend in the local communities, are expected to arise from the Project;
- 47.3 There are potential impacts for access through regional reserves and forest parks;
- 47.4 Traffic is a significant source of noise and air pollution, and poses a risk of road traffic injury;
- 47.5 Transport infrastructure can cause a barrier to physical activity, and can cause community severance and affect social cohesion – and these effects are most pronounced in socio-economically deprived neighbourhoods (e.g. Waitangirua);
- 47.6 There are potential health-promoting impacts including improved access to employment, shops and services, and from promoting economic development;
- 47.7 The incidence of crime may be reduced, especially in Waitangirua where the Link Road will provide increased traffic movements, passive surveillance and lighting;
- 47.8 There is a need to maintain and provide local roads, walkways and cycle-ways as important community linkages; and

47.9 There will be adverse effects during construction, including noise and visual effects.

EFFECTS ON THE SOCIAL ENVIRONMENT

48 The effects on the social environment have been addressed at the regional and local level in Chapters 7 and 8 respectively of Technical Report 17.

Effects at the regional level

49 At a regional scale, from my own assessment and having regard to evidence from other expert witnesses on traffic effects, economics, air quality and noise, I consider that the main overall social and economic effects will be:

49.1 Improved security of the regional transportation network by establishing an alternative major transportation corridor;

49.2 Overall improved accessibility, traffic safety, and reduced travel times arising from the implementation of a major new corridor, with strategically located interchanges and link roads;

49.3 Improved overall connectivity between communities, and opportunities for reduced community severance of communities along the existing SH1 route, which is affected by high traffic volumes;

49.4 Economic benefits from construction activities generating local employment and spending, and from increased levels of economic activity in the region as a consequence of the Project (such as reduced unemployment and underemployment of resources) as described in **Mr Copeland's** evidence;

49.5 Economic growth and indirect economic benefits arising from land use development and fulfilment of strategies in several district and regional planning documents which show the Transmission Gully Project as an integral component;

49.6 The health and sustainability of communities will be enhanced through:

(a) Overall improvements in accessibility to places of employment, shops, social support, health services, parks and reserves;

(b) Maintenance of vital community linkages and walkways and cycleways;

- (c) Traffic safety improvements, including an overall reduction in traffic along the existing SH1 through coastal communities;
- (d) Improved overall air quality and exposure to traffic noise, through reductions in traffic on some routes (in particular, the existing SH1 between Linden and MacKays Crossing, and on SH58 west of the junction of the Main Alignment with SH58 and on Grays Road) and freer flowing traffic on other routes.

Effects at the local level

50 Social effects at the local level have been assessed for each of the Project's phases.

Effects prior to construction

51 The Project has been a long time in the planning phase. This has led to considerable uncertainty in the affected communities as to when it will commence, and what the final design will entail. I consider the recent consultation on the Project, in particular the September 2010 consultation exercise, has helped to dispel those anxieties, and there is now an attitude of 'get on and build it' generally prevalent in the wider community.

Construction effects

52 A project of this scale will inevitably cause some effects and disruption in the affected communities as construction commences. The main construction impacts are in relation to noise, air quality, traffic and visual effects. These are important considerations, particularly given the close proximity of construction to some sections of the communities affected, and the extent and lengthy duration of the build phase.

53 Key to minimising any anxiety in the community is the use of good communication, to inform affected communities and to respond to any difficulties that may arise for them. This will be done principally through the operation of a Construction Environmental Management Plan (*CEMP*), which contains provisions for consultation, monitoring and response in the affected community areas.⁵

54 The CEMP has subsidiary plans, each with provisions for addressing noise, air quality and traffic effects in the local communities. Site Specific Environmental Management Plans (*SSEMPs*) will be prepared within the framework of the CEMP (and its subsidiary plans) which will provide a construction methodology that addresses relevant environmental issues and explains how potential effects can be managed. Six example SSEMPs are provided as part of the application and show how key environmental effects on communities

⁵ Condition NZTA.11, 12; PCC.11; NZTA G.12; PCC G.33.

can be managed, most notably in three areas affected by construction of interchanges and link roads (at the SH58 Interchange, the Waitangirua Link Road intersection with Warspite Avenue and the Kenepuru Interchange).

- 55 The Construction Noise and Vibration Management Plan⁶ (*CNVMP*) sets out methods to control construction noise, including noise barriers in sensitive locations, and these are explained in the evidence of **Dr Chiles**. People in close proximity to the route and the construction sites have been consulted about noise management options, for example at Linden (the Linden Primary School and adjacent residents), Maraeora Marae in Waitangirua, and St Joseph's Church near SH58. The residential areas of Linden/Tawa may be also be subject to potential nuisance and annoyance effects from vibration during construction, and these effects will be avoided or managed by communication protocols in accordance with the CNVMP.
- 56 The effects on air quality during construction are assessed in Technical Report 13, and in **Mr Fisher's** evidence. These effects will be avoided or minimised through dust suppression at its source, and by meeting appropriate separation distances for dust generating activities. Effects will then be managed through the implementation of a Construction Air Quality Management Plan (a subsidiary plan to the CEMP).⁷
- 57 Potential effects from construction traffic may include noise and loss of amenity for residents along the roads to be used for construction-related traffic; and temporary disruption of access and accessibility through the communities. These effects are addressed in Technical Report 4 (Assessment of Traffic and Transport Effects) and in **Mr Kelly's** evidence.
- 58 Effects will be managed through a Construction Traffic Management Plan⁸, and by additional mitigation measures being implemented for affected roads such as Paekakariki Hill Road, Flightys Road and Bradey Road (see Table 4.24 of Technical Report 4). Potential mitigation includes constructing alternative access roads along the Main Alignment from SH1 and SH58, use of minibuses for access, maintenance intervention strategies, and noise and dust management. Overall, access will be maintained to the regional parks and reserves in the long term; however there may be some temporary disruption in access along existing tracks and to some public access points in Belmont and BHFF Regional Parks during construction.

⁶ Condition NZTA.12; PCC.11.

⁷ Condition NZTA.12; PCC.11; NZTA G.14; NZTA G.35.

⁸ Condition NZTA.32; PCC.20.

- 59 There will be visual effects during construction arising from removal of vegetation; construction yards (e.g. at Lanes Flat near SH58, Linden, and Paekakariki); partially completed roading elements; and concentrations of vehicles and machinery at construction sites. These will cause some change to the 'look and feel' of neighbourhoods for the duration of those activities. These effects are addressed in Technical Report 5: Landscape and Visual Assessment, where measures to mitigate the effects are outlined such as rehabilitation planting, and screen planting of construction yards. **Mr Lister** discusses these further in his evidence.
- 60 There are also likely to be positive effects arising from construction activity which will bring new workers and activity to these communities. There are potential benefits from increased patronage of local shops and businesses; employment opportunities for local people; contributions to local community activities; and reduction in crime from increased activity and passive surveillance. The construction activities are also likely to generate a level of interest for the local community (e.g. school groups) as work proceeds.
- 61 Construction of the Transpower Project will take place prior to construction of the TGP and so any construction effects will be felt first. However I note that the Transpower Project will be along the same route; is of limited duration; has considerably less construction traffic; utilises the same construction yards and some existing accesses and farm tracks; and the construction sites will be well removed from dwellings and other sensitive land uses. Consequently I consider the effects during construction will be managed to levels where there are no significant adverse social effects.
- Operational effects***
- 62 The operational, or on-going, effects of the Project on local communities include the potential adverse effects of noise and vibration, air quality, character and visual amenity, safety, community severance and access to community facilities. There are also a number of positive or beneficial effects such as improvements in route security, accessibility and movement, and safety.
- 63 Noise and vibration from road traffic is addressed in Technical Report 12. Mitigation options for operational noise have been assessed in accordance with NZS6806:2010, and noise mitigation is proposed in a number of areas, mainly where the Project is in proximity to urban areas (e.g. near Linden School and Maraeroa Marae, as outlined in **Dr Chiles'** evidence). As such, operational road noise will be able to be mitigated to an acceptable level in accordance with NZS 6806:2010.
- 64 Where traffic is expected to increase (e.g. at Kenepuru Drive, SH58 east of the Main Alignment, and in areas adjacent to the proposed

Link Roads) Technical Report 13 concludes that vehicle emissions will still be within the guidelines for air quality, a key factor being the free-flowing nature of traffic in those areas. **Mr Fisher's** evidence also explains that there will be benefits in terms of improved air quality in some areas, particularly for the coastal communities which will experience less traffic and consequently lower levels of vehicle emissions.

- 65 The introduction of substantial new roading elements will have an effect on the character of local communities, to varying degrees. In some instances the changes in character will be cumulative on the existing SH1 (such as at Linden and MacKays Crossing) and in other instances the changes will introduce new types of infrastructure (such as the backdrop to the eastern suburbs of Porirua). The remote and quiet character of some rural areas will also change, especially in the regional parks (e.g. Belmont Regional Park, BHFF Park).
- 66 **Mr Lister** addresses effects on landscape and urban character, and his evidence describes planting and other mitigation measures to provide screening and framing of views, where appropriate. The Urban and Landscape Design Framework (*ULDF*) (Technical Report 23) focuses special attention on the design and landscaping measures that can be implemented in the most affected communities, so as to maintain, and where possible enhance, the character of these areas. Conditions of consent are proposed that require preparation of a Landscape Management Plan (*LMP*), and for the LMP to be prepared in accordance with the ULDF.⁹ This is covered in the evidence of **Mr Lister** and **Ms Hancock**.
- 67 Road traffic injuries are one of the most significant effects of transport on the health of people and communities. Traffic safety (in particular for pedestrians and cyclists) has been a key focus particularly where the proposed Link Roads will introduce more traffic into certain areas (e.g. at Whitby, Waitangirua, and Kenepuru). Recommendations for signalised intersections, and provisions for pedestrians and cyclists and other design measures to address potential traffic safety issues in those communities are outlined in Technical Report 4, and in Technical Report 23 and discussed in the evidence of **Mr Kelly** and **Ms Hancock**.
- 68 There are some areas of land identified in Technical Report 16 (e.g. at the Porirua Gun Club) as having levels of soil contamination which could pose a human health risk. As **Ms Maize** explains, a Contaminated Soil Management Plan is proposed¹⁰ which includes practices and procedures to minimise environmental effects, and effects on human health and safety.

⁹ Condition NZTA.46; PCC.28.

¹⁰ Condition NZTA.12; NZTA G.15.

- 69 The introduction of significant new roading infrastructure of this scale has the potential for community severance effects. In addition, the vulnerability of socio-economically deprived neighbourhoods to disruptions in existing linkages caused by major new roads was noted from consultation with Regional Public Health. Effects of this nature are most pertinent in Waitangirua where additional traffic movement will be introduced in the heart of the shopping area and community hub, and also at the SH58 Interchange where vital community walkways and cycleways need to be maintained.
- 70 Such effects were recognised in the very early stages of the Project, and were key considerations at a series of urban design workshops, which I participated in together with several members of the Project team and representatives from the local authorities. These workshops allowed for specialist expertise to be provided in aspects of design, engineering and community development.
- 71 The ULDF was developed following those workshops and it contains a range of measures for each section of the route. These include safe crossing options (e.g. underpasses) to maintain the vital linkages across the road corridor so that communities may continue to function in a healthy and safe way. In addition, a condition recommended for the designations requires a LMP to be developed in consultation with local groups to address design issues in this community (e.g. PCC.30).
- 72 Access for recreational users to the Belmont and BHFF Regional Parks, and pedestrian and cycle links through those parks, will be maintained or improved. Water based recreational activities such as swimming and fishing are unlikely to be affected, as Technical Report 15 concludes that the applicable water quality standards for contact recreation will be met once the Project is operational. The Porirua Gun Club and the Pauatahanui Golf Course are directly affected by the Project, and arrangements have been made with these clubs to restore those facilities when the Project is operational.
- 73 There will also be significant beneficial effects for communities once the Project is operational. These include overall improvements in route security, connectivity and movement. This will result in positive social impacts for peoples' day to day living, in terms of access to places of employment, shops, and community facilities. The increased route security, and reduced travel times, will also benefit emergency service providers and freight carriers. These benefits will extend to the coastal communities, which will experience an overall reduction in traffic and congestion on existing SH1.

- 74 Significant traffic safety benefits can be expected to arise from the improvements to the regional transportation network, brought about by new roads and intersections designed to the latest design and safety standards, and generally more free-flowing traffic. This is expected to be particularly apparent in relation to communities alongside existing SH1 which will experience in some areas considerably less traffic and an overall safer environment.
- 75 The Transpower Project will result in the realignment of existing lines and pylons through Community Areas 2 and 3. From a social effects perspective the key considerations are:
- 75.1 There areas are quite sparsely populated and have few dwellings and no community facilities such as schools, childcare facilities or hospitals along the proposed line and pylon route;
- 75.2 The area is already subject to the existing transmission lines, and will, subject to confirmation of the designations for the TGP, also contain a major motorway in the near future;
- 75.3 From **Mr Lister's** evidence I do not consider the visual effects from the Transpower Project will be such that there will be a significant change in the character or feel of these community areas; and
- 75.4 The relevant guidelines and regulations for public exposure to electric and magnetic fields will be met, as confirmed in **Ms Yorke's** evidence. Therefore, I do not consider there will be adverse public health effects.

RESPONSE TO SUBMISSIONS

- 76 My response to the submissions relevant to my evidence is as follows:

Regional economic and social effects

- 77 Submitter numbers 6¹¹, 16¹², and 66¹³ from a private industry, an airport authority and a road user association have all strongly supported the Project for the economic and social benefits it will bring to the region, and have urged that it be constructed as soon as possible. The regional benefits of the Project are discussed in paragraph 49 of my evidence, and the economic benefits in particular are addressed in the evidence of **Mr Copeland**. I am not aware of any submissions from businesses or industry groups

¹¹ Ballinger Industries Ltd.

¹² Kapiti Coast Airport Ltd.

¹³ Automobile Association.

opposing the Project outright on regional social and economic grounds.

- 78 Submitter numbers 38¹⁴ and 49¹⁵ take a principled opposition to the Project on the grounds that it promotes the use of private cars and there would be greater health benefits from making provision for public transport and alternative transport modes instead. As discussed in paragraph 49 of my evidence, in my opinion the Project will, overall, improve the accessibility for people across the region so that they can access community facilities and parks and reserves for recreation, and the important linkages for cyclists and pedestrians will be maintained and in some cases enhanced. The evidence of **Mr McCombs** is that public transport and the construction of this roading infrastructure is being done as a comprehensive and integrated part of the overall Regional Land Transport Strategy, and public transport forms an important part of the overall strategy.

Community severance in coastal communities

- 79 Submitter 58¹⁶ is concerned that the roading changes will not in themselves remove the severance issues experienced by coastal communities along the existing SH1. I support **Ms Lawler's** response which is that while the Project will not remove community severance completely, significant traffic reductions (including heavy vehicle reductions) along the existing SH1 will enhance community access to local businesses, residences and facilities.
- 80 Submitter 46¹⁷ also refers to the current problem of severance in the Pukerua Bay community from the existing SH1 which has motivated the residents association to develop a neighbourhood plan for Pukerua Bay to address those issues. Submitter number 22¹⁸ states that the Paremata/Mana coastal highway "splits the community in two", and that the projected reduced traffic along this route (arising from the Project's development) will enable them to shop in Mana and to more readily access the public recreation parks and reserves in the community. I also note that Submitter 38¹⁹, who was in opposition, acknowledges that there will be some benefits arising for coastal communities from this reduced severance.

¹⁴ Public Transport Voice.

¹⁵ Rational Transport Society.

¹⁶ Living Streets Wellington.

¹⁷ Pukerua Bay Residents Association.

¹⁸ Roger, Jennifer and Karen Phillips.

¹⁹ Public Transport Voice.

Effects on Waitangirua community

81 Submitter numbers 15²⁰ and 25²¹ both raise concerns about the effects arising from additional traffic along Warspite Avenue, and into Waitangirua. The matters raised include traffic and pedestrian safety, traffic noise, and air quality. These matters are discussed at paragraphs 62-74 of my evidence, and are also considered in the evidence of **Mr Kelly, Dr Chiles, Mr Lister, Ms Hancock** and **Mr Fisher**. Those witnesses and I all agree that the effects of additional traffic in Waitangirua will be acceptable, given that:

81.1 Recommendations have been made for signalised intersections, and provisions for pedestrians and cyclists and other design measures to address potential traffic safety issues;

81.2 The NZ standard for noise (NZS6806:2010) will be met and where appropriate, such as near Mareora Marae, noise mitigation will be installed; and

81.3 Vehicle emissions will be within the guidelines for air quality, a key factor being the free-flowing nature of traffic.

82 Submitter 15²² also raises concerns for the safety of Waitangirua Community Park users. **Ms Lawler's** evidence states that PCC is continuing its discussion with the community regarding the issues raised in this submission. The specific safety concerns near the Waitangirua Community Park are further addressed in **Mr Bailey's** evidence.

PROPOSED CONDITIONS

83 The designation conditions for the NZTA Project include several conditions relevant to community effects, as follows:

83.1 All works are to be carried out in accordance with management plans (NZTA.7), including the CEMP and its subsidiary plans;

83.2 A CEMP is required to be submitted with an outline plan for any part of the Project (NZTA.11). This will include systems and processes for informing the public of contact details for key personnel, and communication protocols (NZTA.12). It also requires a CNVMP, and Construction Air Quality Management Plan with controls over noise levels and vibration;

²⁰ Cannons Creek Residents and Ratepayers Association.

²¹ Waitangirua Community Park Design Team.

²² Cannons Creek Residents and Ratepayers Association.

- 83.3 There are requirements for public communication and liaison (NZTA.14) including the development of a Communications Plan (NZTA.15);
- 83.4 Complaints procedures are required to be put in place and observed (NZTA.16 and NZTA G.18);
- 83.5 There are operational noise limits proposed (NZTA.21 – NZTA.31), including a requirement to implement specified noise mitigation options;
- 83.6 There are a range of roading and traffic management requirements (NZTA.32 – NZTA.42). These include a requirement for a Construction Traffic Management Plan, and methods to manage the effects on the surrounding residential neighbourhoods such as hours of operation and numbers of heavy vehicle movements per day (NZTA.34). Site Specific Traffic Management Plans are required to be prepared following consultation with identified key stakeholders (NZTA.36);
- 83.7 Restrictions on lighting and glare are included to protect amenity of adjacent residential neighbours (NZTA.45); and
- 83.8 Landscape management and urban design requirements are included (NZTA.46 – NZTA.50), such as the LMPs in consultation with Te Runanga o Toa Rangatira and the local councils to mitigate the effects of the Project on properties in the vicinity.
- 84 The PCC Project has corresponding conditions. Condition PCC.30 expands on the equivalent NZTA condition for the LMPs. It requires wider consultation, with the Whitby Residents Association, Maraeora Marae, and the Tokelauan Church. Each LMP is required to include pedestrian and cycle facilities; and to show how consideration has been given to the landscape character of the local area, and to crime prevention through environmental design principles. It includes specific requirements for Waitangirua, including an entrance feature, and landscape treatment for noise barriers at the Waitangirua Link Road.
- 85 Overall, I consider these conditions, in addition to the design measures already incorporated in the Project, provide the appropriate level of mitigation for matters that are important to the social well-being of communities along the route. I particularly support the requirements for localised management plans to address site specific issues in local communities; consultation in the development of LMPs for each area; and the procedures in the CEMP and its subsidiary plans for public communication, complaints procedures and monitoring of impacts in local communities.

- 86 The conditions for the Transpower Project also require development and implementation of a CEMP (i.e. conditions TL16 to TL21). This includes measures to manage construction traffic; procedures to receive and respond to complaints about construction activities; and for a community contact person to be available.

CONCLUSIONS

- 87 Transmission Gully is undoubtedly a major transportation project, traversing a large geographic area, and affecting several communities along its length.
- 88 However, from a social effects perspective, I consider the following factors to be of importance:
- 88.1 This motorway route has been planned for quite some time, and there has been widespread involvement by the community and affected parties in the planning processes. This has resulted in designations in the district plans, and planning strategies and development frameworks having been framed around it;
 - 88.2 For the most part, the route traverses rural areas where there are very few effects on local communities;
 - 88.3 For those communities which are affected the recent planning of the Project has placed particular emphasis on design, development of mitigation measures, and a framework of CEMPs and associated management plans with communication and monitoring protocols to minimise and manage those effects;
 - 88.4 The coastal communities will benefit from reduced traffic along SH1, and opportunities to enhance local access to shops and facilities; and
 - 88.5 Overall, the Project will bring significant social benefits at the regional level from enhanced route security; improved accessibility to places of employment, community facilities and parks and reserves; and from increased economic activity and opportunities for employment.
- 89 As a result of these factors, I consider there is a good level of overall support in the community for the Project on social and economic grounds, and this has been borne out in the recent consultation and submission processes.

- 90 The Transpower Project entails the realignment of existing lines infrastructure along this same route, and will result in little change to the social environment of these community areas.



Gary Martin Rae
10 November 2011