

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 rebuttal evidence of Gavin Westwood Fisher (Air quality) for the NZ Transport Agency and Porirua City Council

Dated: 20 January 2012

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

STATEMENT OF REBUTTAL EVIDENCE OF GAVIN WESTWOOD FISHER FOR THE NZ TRANSPORT AGENCY AND PORIRUA CITY COUNCIL

INTRODUCTION

- 1 My full name is Gavin Westwood Fisher.
- 2 I have the qualifications and experience set out at paragraphs 2 to 5 of my statement of evidence in chief, dated 18 November 2011 (*EIC*).
- 3 I repeat the confirmation given in my EIC that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses (Consolidated Practice Note 2011)
- 4 In this statement of rebuttal evidence, I respond to the section 42A report of November 2011, provided by Mitchell Partnerships (*the section 42A report*).
- 5 For the purposes of this evidence, I will refer to the NZ Transport Agency (*the NZTA*) Project¹ and the Porirua City Council (*PCC*) Project² collectively as the "Transmission Gully Project" (and hereafter, *the TGP* or *the Project*).

SUMMARY OF EVIDENCE

- 6 The section 42A report is concerned with nuisance dust effects during the Project's construction phase. I consider that the Construction Air Quality Management Plan (*CAQMP*) will successfully manage any such effects.
- 7 In this statement of evidence I have provided further information regarding the number and possible locations of dust monitoring sites during the Project's construction.

SECTION 42A REPORT

- 8 The section 42A report does not make any comment on the potential effects of emissions from vehicles. It does, however, discuss dust effects and makes some recommendations for action.
- 9 The first relevant comment is in section 4.2.12 "Air Quality" (page 48), and indicates that the proposed methodology for dust mitigation and avoidance is acceptable:

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

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

"Dust

...the Construction Air Quality Management Plan sets out the potential dust sources and appropriate control methods. These appear in our view to be based on best practice methodology and suitably robust to manage potentially adverse dust discharges."

- 10 The second comment, in the same section, recommends the use of trigger levels for assessing the monitoring results:

"In our view specification of these trigger levels in both the management plan and conditions would provide greater certainty for those potentially affected by dust discharges."

- 11 This will be implemented through the CAQMP. Specifically the CAQMP follows the Ministry for the Environment guidelines³. This guide specifies 24-hour averages that should not be exceeded (for instance 80 µg/m³ of Total Suspended Particles (*TSP*) in sensitive areas). However dust nuisance in some circumstances with this Project is likely to be due to shorter term events, rather than over 24 hours. Therefore, I propose that slightly more stringent trigger levels be applied, as has been used by the NZTA on other recent projects with dust sensitive neighbours⁴. These are:

Trigger	Value
Short term TSP (1-hour)	200 µg/m ³
Daily TSP (24-hours)	60 µg/m ³
Wind warning level (3-second gust)	10 m/s

- 12 I suggest that these new trigger levels are be included in the CAQMP along with the existing discussion on the Ministry for the Environment's guidelines, which is found in section 2.2, on page 5 for the draft CAQMP⁵. I note that the conditions attached to **Ms Rickard's** rebuttal evidence confirm that the draft CAQMP submitted with the AEE will be updated and finalised.
- 13 The third comment (same section) relates to detail in the proposed conditions on mitigation measures:-

"The conditions set out that this could include the cleaning of water tanks, and replenishment of water supplies, cleaning of houses and other buildings if dust presents a problem. We support the inclusion

³ Ministry for the Environment Good Practice Guide for Assessing and Managing the Environmental Effects of Dust Emissions. 2001.

⁴ For instance at the Waterview Connection Project in Auckland.

⁵ Transmission Gully Project – Construction Air Quality Management Plan. Beca. March 2011.

of such contingency measures, however we note that there is no detail provided in the draft management plan as to when such contingency measures will be implemented, and how the applicant will implement the required actions (i.e. reaching agreements with affected landowners etc). We think that this needs to be clarified by the applicant."

- 14 This will have to be implemented on a 'case-by-case' basis. It is simply not possible to determine which properties might be adversely affected to the extent they need some mitigation action. Not only is this affected by the detailed operations which are not yet known, but it will also be somewhat weather dependent. It is expected that the contractors will respond to any, and all, validated complaints concerning effects of dust on neighbouring properties and be required to undertake cleaning procedures to remedy the specific situation. The guidelines for this are clear, and all detailed in the CAQMP – which each contractor on site will need to comply with.
- 15 The next comment (same section) relates to rock crushing operations, and indicates that it is acceptable.

"Rock crushing

It appears that the response proposed is consistent with best practice, provided appropriate conditions are in place."

- 16 The next comment relates to the concrete batching plant.

"Concrete batching plant

We also note that the application states that the conditions of consent will include a requirement that there be no discharges to air, including visible discharges, which are noxious, dangerous, offensive or objectionable in the opinion of an enforcement officer. In our view this does not provide sufficient certainty and it would be preferable if the conditions set out process quantity limitations with corresponding particulate discharge limits, along with a suitable monitoring regime to ensure specified warning triggers are not breached."

- 17 This is a very standard type of condition, common in consents issued by most Councils throughout New Zealand. The "opinion of an enforcement officer" is a reasonable and robust measure to assess dust nuisance. As discussed further below, there will be a monitoring site close to the batching plant, and trigger levels will be used as an input to this assessment. However it is neither practical nor realistic to attempt to tie in any mitigation responses to any particular trigger condition. This is because (a) the event can be very short lived (i.e. missed by the trigger condition), (b) quite

sensitive to wind direction (i.e. dust blowing towards a house would be worse than dust blowing away from it), and (c) the effects can be very localised (i.e. missed by the monitor).

- 18 The final comments in the section 42A report relate to the conditions – section 6.1 “Conditions” (page 77):

“Air Quality Conditions

Dust could be a potentially significant issue, and there are sensitive receptors within reasonably close proximity of the proposed works. In our view the conditions should specify the monitoring that will occur to ensure these sensitive receptors are not adversely affected during construction, as well as the triggers that will be used to determine when action will be undertaken. We think that it is also possible to set appropriate process and discharge limitations for the concrete batching plant within the conditions.”

- 19 As I have explained elsewhere, monitoring of dust effects will be dealt with through the provisions of the CAQMP. I consider that the conditions proposed for the CAQMP are sufficient to ensure this occurs.
- 20 As part of the CAQMP, it is proposed that three ambient dust monitoring sites will be set up. These will be continuous TSP monitors of the type specified in the Ministry for the Environment Good Practice Guide⁶ and will be operated in accordance with the specification of the Guide. The details of these are all fully covered in the current version of the CAQMP. The only aspect not specified in the CAQMP is the number and location of the monitors, which is further detailed here.
- 21 The precise location of the sites has not yet been determined, and this will be done in consultation with territorial authority staff, at the appropriate time immediately before construction commences. The following three sites are proposed on the basis of (a) these are where the most activities will occur that can lead to dust, (b) they are the most sensitive locations, and (c) they are locations identified by submitters as of potential concern. The detailed locations are all subject to landowner consent.

⁶ Ministry for the Environment Good Practice Guide for Assessing and Managing the Environmental Effects of Dust Emissions. 2001.

Dust Monitoring Site Number	Approximate Location
1	Linden Connection The monitor will ideally be located at or near one of the houses closest to construction. Perhaps along Collins Ave. or perhaps at Linden School.
2	Warspite Avenue interchange The monitor will ideally be located at or near one of the houses closest to construction. Perhaps at the eastern extent of Driver Cres. or Waihora Cres.
3	SH58 interchange (and Concrete Batching Plant) The monitor will ideally be located at or near 31 Paramata-Haywards Rd (close to the nearest residence), or at the Transpower substation.

- 22 Monitoring will be carried out for the duration of the construction phase around each site. Should circumstances warrant it, mobile monitors may be employed and relocated according to the location of specific dust generating activities, with advice from council staff.



Gavin Westwood Fisher
20 January 2012