

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act  
1991

**AND**

**IN THE MATTER** of a hearing by the Canterbury  
Regional Council Hearing Panel on  
the proposed Canterbury Land and  
Water Regional Plan

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**SUPPLEMENTARY STATEMENT OF EVIDENCE OF JANE WEST FOR  
TRANSPOWER NEW ZEALAND LIMITED**

**(HEARING GROUP 3)**

**14 May 2013**

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## 1. INTRODUCTION

1.1 My full name is Jane West. I refer the Commissioners to the statement of my qualifications and experience set out in my evidence on behalf of Transpower New Zealand Limited (**Transpower**) on the proposed Canterbury Land and Water Regional Plan (**pLWRP**), dated 4 February 2013.

1.2 I presented this evidence to the Commissioners during the First Hearing, on 13 March 2013.

## 2. PURPOSE OF SUPPLEMENTARY EVIDENCE

2.1 This supplemental evidence addresses Transpower's submissions on the West Melton section (Section 9) of the pLWRP, and in particular Policy 9.4.1, which is discussed in Section 5 (pages 25 – 33) of the Officers' Report.

2.2 The sub-regional sections of the pLWRP generally reflect CWMS Zone Committee boundaries, and contain policies and rules which apply in a location instead of, or in addition to, the policies or rules in Sections 4 and 5 of the pLWRP.

## 3. THE NATIONAL GRID

3.1 The National Policy Statement on Electricity Transmission (**NPSET**) recognises the national significance of the need to operate, develop and upgrade the electricity network, and section 67(3) of the Resource Management Act 1991 (**RMA**) requires that regional plans must give effect to the provisions of any NPS.

3.2 My first statement of evidence provides an overview of the hierarchy of legislation and policy in place to protect national and regionally significant infrastructure in some detail, and I refer to section 3 (pages 4 to 9) of that evidence which is relevant to my consideration of Policy 9.4.1 of the pLWRP.

- 3.3** In particular, the NPSET requires decision makers to recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission (Policy 1) and to recognise and provide for the effective operation, maintenance, upgrading and development of the network (Policy 2).

#### **4. POLICY 9.4.1**

- 4.1** Policy 9.4.1 of the Christchurch-West Melton sub-regional area seeks to protect the high quality, untreated groundwater sources available to Christchurch City as a potable water supply in the area shown on the planning maps as the Christchurch Groundwater Protection Zone. This is to be achieved by a number of actions, including ensuring that abstraction of groundwater maintains upward hydraulic pressure, adopting best practicable options for the treatment and disposal of stormwater and other contaminants, provisions regarding new landfills, and ensuring the thickness of material between land uses and the aquifer.

##### *Policy 9.4.1(c)*

- 4.2** Policy 9.4.1(c) limits the use of land for activities which involve the aggregation of large quantities of hazardous substances in ways which may spill, leach or otherwise contaminate groundwater. Transpower is concerned with the lack of clarity within this policy, and considers it to be inappropriate to place so much emphasis on volumes when determining the limits on the use of land. For example, would one of Transpower's substation sites be considered to be an aggregation of large quantities of hazardous substances? If so, I would suggest that such sites should not trigger this policy in that the hazardous substances are used in a way that, even in the unlikely event<sup>1</sup> of a spill, there are mitigation measures in place to minimise the risk of any hazardous substance entering groundwater<sup>2</sup>. Transpower's concern is that, for instance, an additional transformer may not be permitted to be installed because under this policy the total quantities of hazardous substances on the site would be considered too large, irrespective of the risk.

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<sup>1</sup> Any significant leak of oil from a transformer can jeopardise the operation of the National Grid. Transpower regularly inspects the transformers (and maintains them as necessary) to avoid the failure of a transformer.

<sup>2</sup> As described in section 5 of the evidence of Mr Andrew McMahon, filed in relation to Hearing Group 1.

**4.3** There is no other guidance in the pLWRP on how a land use limit is to be exercised through the consent process, and in my view this uncertainty places an unnecessary burden on Transpower. This is especially true when considering the demonstrated resilience of the systems in the wake of the Canterbury earthquakes, and the operating guidelines (discussed at paragraphs 5.17 to 5.23 of Mr McMahon's evidence), which Transpower has developed and operates in accordance with in order to mitigate the risks of oil spill from transformers. In my view it is more appropriate to "control" by way of appropriate mitigation and a risk and effects based approach, rather than "limit" quantities when no assessment of the level of risk has been undertaken. The policy as proposed, does not adopt this approach.

**4.4** Transpower requests that Policy 9.4.1(c) be amended as follows:

*(c) ~~Limiting~~ **Controlling** the use of land ~~where~~ **for** activities ~~which~~ involve the aggregation of large quantities of hazardous substances **to ensure the risks of** ~~in ways which may~~ spillage, leaching or otherwise contaminat**ing** groundwater are **appropriately mitigated**.*

**4.5** The officer has recommended that Transpower's submission be accepted on 9.4.1(c), which I support. I note that the policy should use the word "are", rather than "is" appropriately mitigated.

*Policy 9.4.1(e)*

**4.6** Policy 9.4.1(e) is also of concern to Transpower. The policy requires a 3 m thickness of material to be retained above the aquifer and that where this layer is to be reduced, that it be replaced with inert fill. The intent of the policy is clear in terms of gravel extraction. However, clarification of the policy's scope is required because in the case of excavations for installation of equipment, services or building foundations, the works themselves replace the excavation and not inert fill.

- 4.7 In response to the submission, the Officers have noted at page 27 of their Report that:

*The Oil Companies and Transpower seek to amend part (e) which requires sites excavated over the groundwater protection zone, including excavation for construction purposes and gravel extraction, to be rehabilitated using inert fill. They point out that in most cases excavation will have occurred to enable construction or installation of structures, which logically cannot be backfilled with inert fill.*

and

*With regard to the requirement to use inert fill, in most cases backfilling and the installation of structures will and should involve inert material such as shingle and concrete. It is considered therefore that the policy should not be amended as requested.*

- 4.8 I consider that while the policy is likely to be appropriate in most circumstances, the installation of structures is not what would constitute inert fill. The intent of the policy is not to restrict the erection of such structures, but rather to ensure that excavations are not left unfilled thereby increasing the potential for the contamination of groundwater.

- 4.9 To ensure the intent of the policy is not compromised, but the wording is clarified, the following amendment is sought

*Ensuring any land uses maintain an overlying confining layer above the aquifer of at least 3 m thickness or, where this layer is removed or reduced, including as part of site construction or gravel or mineral extraction, measures are put in place to mitigate the risk of contaminants from land uses entering groundwater and ~~sites are rehabilitated once construction, maintenance, or excavation ceases,~~ any remaining excavations are rehabilitated using inert fill.*

**4.10** A foundation of a tower support structure on a Transpower transmission line contains reinforced steel. There will be cases where the tower foundations and other buildings will be within 3m of the aquifer. By way of example, Transpower had a geotechnical report carried out in 2011 as part of the construction of a building within the Bromley substation switchyard. The report identified that groundwater was encountered at a depth of 2.1m.

**4.11** Transpower is therefore seeking an amendment to the wording of Policy 9.4.1(e) so that it does not hinder the construction and maintenance activities related to the National Grid and so that the Policy gives effect to the NPSET. In my view the change sought by Transpower will not affect the importance of only using inert fill, which is supported where any excavation is simply being backfilled rather than the works themselves replacing the excavation.

## **5. CONCLUSION**

**5.1** In section 10 of my statement of evidence of 4 February 2013 I consider section 32 of the RMA and explain that it requires an evaluation as to the extent to which each objective is the most appropriate way to achieve the purpose of the RMA, and whether the policies, rules, or other methods are the most appropriate for achieving the objectives.

**5.2** In my view the amendments sought to Policy 9.4.1(c) and (f) better achieve the three key objectives of the pLWRP that affect the development, operation and maintenance of the National Grid, which are Objectives 3.16, 3.20 and 3.23. I also consider that Policy 9.4.1(c) and (f) as proposed in the pLWRP, unnecessarily constrains and does not facilitate the effective operation, maintenance, upgrading and development of the network. In my view the amendments requested will give better effect to the NPSET and the RPS.

**Jane West**

**14 May 2013**