

**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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**STATEMENT OF EVIDENCE OF JANE WEST FOR  
TRANSPower NEW ZEALAND LIMITED**

**4 February 2013**

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## 1. INTRODUCTION

### Qualifications and experience

- 1.1 My full name is Jane West. I am a Senior Planner at Golder Associates (NZ) Ltd (**Golder**), a ground engineering and environmental consulting firm, and have been in this role since June 2010.
- 1.2 I am a full member of the New Zealand Planning Institute and have over 13 years' experience in the field of resource management and planning in New Zealand. This includes my current role as a Senior Planner at Golder, my previous employment as a Senior Planner and Principal of Davis Ogilvie and Partners Ltd, and as the District Planner for the Grey District Council. I hold the qualification of Bachelor of Resource Studies from Lincoln University.
- 1.3 With respect to the matter before the Hearing Commissioners, I was engaged by Transpower New Zealand Limited (**Transpower**) to present planning evidence in support of their submission on the proposed Canterbury Land and Water Regional Plan (**pLWRP**). My involvement in this process began in December 2012, after the submissions were lodged. I was not involved in the earlier preparation of Transpower's submission, but was involved in the review of the further submission.

### Scope of evidence

- 1.4 My evidence covers the following matters:
- (a) a brief overview of Transpower's responsibilities with respect to the National Grid;
  - (b) an overview of the relevant statutory context, including the Electricity Act 1992 (**EA**); the National Policy Statement on Electricity Transmission (**NPSET**), the National Environmental Standards for Electricity Transmission Activities (**NESETA**), the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect

Human Health (**NESCS**), the Canterbury Regional Policy Statement (**RPS**), the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2012 (**ECan Act**), and the Canterbury Water Management Strategy (**CWMS**);

- (c) discussion on Transpower's key points of concern with respect to the provisions of the pLWRP, as well as those areas of support;
- (d) comment on other various matters that arise out of a review of the pLWRP; and
- (e) conclusions with regard to section 32 of the Resource Management Act 1991 (**RMA**).

### **Code of Conduct for Expert Witnesses**

**1.5** I have read the Environment Court's code of conduct for expert witnesses and agree to comply with it. I have prepared my statement of evidence accordingly. I confirm that my evidence is within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

## **2. EXECUTIVE SUMMARY**

**2.1** Transpower controls the electricity transmission network, and the pLWRP contains objectives, policies and rules that affect the operation, maintenance and development of that infrastructure. The key points raised in my evidence are set out below.

**2.2** There is a hierarchy of legislation and policy in place to protect nationally and regionally significant infrastructure including the EA, the NPSET, the NESETA and NESCS, and the RPS.

**2.3** The pLWRP is required to give effect to the NPSET and the RPS, and although there is general support by Transpower for the policy framework of the pLWRP, in my opinion the rule framework does not give adequate effect to the NPSET or the RPS with respect to nationally and regionally significant infrastructure.

- 2.4** In particular, the pLWRP includes conditions to a number of rules (including Stormwater Rule 5.72) that exclude a permitted activity status for land that is potentially contaminated. I acknowledge that the report prepared under section 42A of the RMA (**Officers' report**) does include some recommendations on this matter, but I believe they do not provide a satisfactory alternative relief to that sought by Transpower. Further, there are a number of rules where no relief has been recommended and I have dealt with these in sections 6 and 7 of my evidence.
- 2.5** The rule framework for earthworks and excavations is also dealt with in my evidence, in particular, the non-complying activity status of a non-compliance with Rule 5.155. I have put forward various ways to provide appropriate relief, and I also acknowledge and agree with the relief / recommendations suggested in the Officers' report on this matter.
- 2.6** The matter of adverse effects that other activities may have on Transpower infrastructure is also raised in terms of the rules surrounding gravel extraction and vegetation burning. I do not agree with the recommendations of the Officers on these points, and explanation is provided at paragraphs 9.5 to 9.9 of my evidence.

### **3. THE NATIONAL GRID**

- 3.1** Transpower is the State Owned Enterprise that controls the network of high voltage transmission lines, substations, switchyards and two national control centres (in Wellington and Hamilton) linked via a telecommunications network, collectively known as the National Grid. The National Grid comprises approximately 12,000 km of transmission lines and over 170 substations.
- 3.2** There are 20 substations and 6 outdoor switchyards in the Canterbury region, with numerous transmission lines of different voltages ranging between 66 kV and 350 kV on poles and towers. In Canterbury most lines will traverse various streams and rivers and there are also many support structures located within river beds.

Substations and switchyards are generally unmanned and are controlled remotely through the telecommunications network.

- 3.3** A reliable and constant energy supply is critical to sustaining the national and regional economy, and Transpower must meet an increasing demand whilst dealing with numerous constraints within the existing regulatory framework.

### **Electricity Act 1992**

- 3.4** The EA (sections 22 and 23) provides Transpower with statutory rights to the continued ownership and operation of existing assets, including access rights to inspect, operate and maintain the lines, and to complete existing works in respect to those that had commenced but not been completed before 1 January 1988. However, the Grid is regularly vulnerable to the effects of land use change and encroaching activities upon its facilities. Transpower must comply with the relevant statutory documents, including regional plans, to ensure the ongoing operation and maintenance of existing facilities, and for the installation of new ones.

- 3.5** When exercising functions and powers under the RMA, section 7 requires that particular regard shall be had to the efficient use and development of natural and physical resources (section 7(b)), and to the benefits to be derived from the use and development of renewable energy (section 7(j)). Additionally, Regulation 10(2)(i) of the Resource Management (Forms, Fees and Procedures) Regulations 2003 requires Transpower to be served notice of application for or reviews of resource consents that may affect the National Grid. It follows that some protection is afforded to Transpower in the case of a proposal that might encroach on its facilities. However, each case is assessed on its particular merits and must therefore be considered, and submissions made as and when warranted, by Transpower in each case.

## **National Policy Statement on Electricity Transmission**

- 3.6** The NPSET recognises the national significance of the need to operate, maintain, develop and upgrade the electricity transmission network. Section 67(3) of the RMA requires that regional plans must give effect to the provisions of any NPS.
- 3.7** 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).
- 3.8** Policy 3 has significance in terms of constraints on Transpower in operating its network. It requires that when considering measures to avoid, remedy or mitigate adverse environmental effects of transmission activities, decision makers must consider the constraints imposed on achieving those mitigation measures by the technical and operational requirements of the network. This is at the heart of Transpower's submission on the pLWRP, in that there is a need to ensure that the effective and efficient operation of the network is not constrained unnecessarily by the requirements of regional rules. That is, if rules are imposed that set out to minimise adverse effects on the environment, that in fact by their nature do nothing more than constrain the operation of existing significant infrastructure without achieving any real environmental benefit in those instances, then in my opinion those rules would not give effect to the NPSET.
- 3.9** Policies 4 to 8 deal with the decision makers' obligations with regard to the assessment of adverse effects when considering new or upgraded electricity infrastructure in both urban and rural settings, whilst also enabling the reasonable operational, maintenance and minor upgrade requirements of established electricity transmission assets (Policy 5). Policies 9 to 13 cover various other matters specific to the electricity network, including Policies 10 and 11 which deal with avoiding reverse sensitivity effects on the network.

- 3.10** Policy 14 specifically requires regional councils to include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses. I consider that the pLWRP does intend to achieve NPSET Policy 14 through Objective 3.16 of the pLWRP which states, "*Infrastructure of national or regional significance is resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, ongoing maintenance, repair, development and upgrading*". Although this objective and associated policies do provide for a level of protection of its infrastructure, it is my view that some policies and rules of the pLWRP, in some instances, impose restrictions that in effect fail to achieve the appropriate protection. I expand on this point in greater detail later in my evidence.

### **National Environmental Standards for Electricity Transmission Activities**

- 3.11** The NESETA sets out a national framework of permissions and consent requirements for activities on existing electricity transmission lines.
- 3.12** Notably the NESETA only applies to existing (as at 14 January 2010) high voltage electricity transmissions lines, and does not apply to the construction of new transmission lines, nor does it apply to substations or lines not owned or operated by Transpower (that is, those lines that supply power from the regional substations to electricity users). The NESETA also excludes the construction of bridges and culverts, and earthworks to the extent that they are subject to a regional rule.

## Canterbury Regional Policy Statement 2013

- 3.13** The Canterbury RPS provides an overview of the significant resource management issues facing the region, and sets out objectives, policies and methods to achieve the integrated management of the natural and physical resources of Canterbury. I note two policies in the RPS (Policies 16.3.4 and 17.3.3) that are worthy of a separate mention, and are also discussed later in more detail with respect to certain provisions of the pLWRP.
- 3.14** Policy 16.3.4 encourages a reliable and resilient electricity transmission network. Policy 16.3.4(1) includes having particular regard to the local, regional and national benefits when considering operation, maintenance, upgrade or development of the electricity transmission network.
- 3.15** Policy 16.3.4(3) specifically enables the operation, maintenance, upgrade, and development of the electricity transmission network subject to two matters. The first is that the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable, remedied or mitigated. The second is that other adverse effects on the environment are appropriately controlled. This is important to note because the Policy is particularly lenient toward works on the transmission network so long as adverse effects on significant natural or physical resources are avoided. Even then, the policy acknowledges that where this is not practicable it is acceptable for those effects to be remedied or mitigated.
- 3.16** Policy 17.3.3 deals with contaminants in land and provides that contaminants should only be allowed to remain in the ground if discharges of contaminants beyond the site to air, water or land will not result in significant risk to human health or the environment.
- 3.17** There is a notable alignment of policy between the NPSET and the RPS and I consider that the RPS gives effect to the NPSET on the matter of nationally and regionally significant infrastructure, in accordance with section 62(3) of the RMA. The pLWRP must also



give effect to the NPSET under section 67(3) of the RMA, however on the matter of nationally and regionally significant infrastructure it is my opinion that the rule framework of the pLWRP does not give appropriate effect to the NPSET. I expand on this later in my evidence.

#### **4. OVERVIEW OF PROPOSED LAND AND WATER REGIONAL PLAN**

##### **Key concerns**

**4.1** Transpower's submission is that as the owner and operator of the National Grid. The following issues addressed in the pLWRP are relevant to Transpower:

- (a) managing transmission lines, particularly within natural areas and lakes and river beds;
- (b) managing adverse effects of the National Grid, in particular discharges of stormwater and sewage associated with substations and switchyards;
- (c) earthworks and vegetation management associated with maintenance and development of the National Grid;
- (d) recognising and protecting transmission line corridors;
- (e) managing adverse effects of others' activities on the National Grid, such as gravel extraction;
- (f) ensuring security of supply and recognition of the benefits of the National Grid;
- (g) enabling the establishment of new lines as required to meet increasing demand and security requirements; and
- (h) achieving consistency in all these matters across regional council boundaries.

**4.2** The key areas for concern for Transpower in managing these issues under the pLWRP are:

- (a) the relationship of stormwater and wastewater discharge provisions and sites identified as "potentially contaminated land";

- (b) the relationship of earthworks and sites identified as "potentially contaminated land"; and
- (c) the relationship of earthworks provisions and groundwater levels.

### **Support for proposed Land and Water Regional Plan**

- 4.3** Transpower is generally supportive of the pLWRP, and in particular the objectives which require management of land in such a way as to avoid adverse effects. Objectives 3.18 to 3.23 are supported by Transpower and sought to be retained in their current form. In particular Objective 3.23 requires all activities to operate at "good practice" or better to protect the region's freshwater resources. This is supported because Transpower recognises the importance of continuing to operate in accordance with good practice guidelines and standards that are relevant to the assets and issues applicable to the electricity transmission network. Transpower has its own such guidelines, which I refer to later in my evidence.
- 4.4** It is worth noting at this point that Transpower's infrastructure, and the operation of Transpower sites was severely tested during the Canterbury earthquakes. The network sustained very little damage and there were no hazardous substances spills or other adverse environmental effects from the transmission network as a result of the earthquakes.
- 4.5** A number of policies are supported by Transpower. In particular, Policy 4.23 is supported in terms of managing discharges from contaminated land so that there are no adverse effects on people's health or safety, on human or stock drinking water supplies, or on surface water. Transpower's submission does seek one change to Policy 4.23 in order to better distinguish the relationship between the site that contains contaminated land, and the environment outside the boundary of the site. As such a change to Policy 4.23 is sought as follows (additions are shown in underlined, deletions are shown with a ~~strikethrough~~):

*Policy 4.23*

*Any discharges of hazardous substances from contaminated land, including existing and closed landfills, shall be managed to ensure there are no adverse effects beyond the site boundary on people's health and safety, on human or stock drinking water supplies, or on surface water.*

- 4.6** I consider this to be a reasonable change to the wording of Policy 4.23 in that it provides more clarity, and will achieve greater consistency with the RPS. In particular, Policy 17.3.3 of the RPS allows for contaminants to remain in the ground if discharges of contaminants beyond the site are not likely to result in significant risk to human health or the environment. In the case of Transpower's substation and switchyard sites, although many may have soil contaminants which exceed background levels, mitigation measures exist on the sites such as bunding and containment, along with operational guidelines, which manage the risk of contaminants being transferred beyond the boundary to other sites. I consider that such measures give effect to the outcomes of Policy 17.3.3 of the RPS and Policy 4.23 of the pLWRP (with the changes requested by Transpower in order to provide more clarity).
- 4.7** Transpower also supports that part of the rule framework (Rules 5.112 – 5.121) that provides for structures in, on or under the bed of lakes and rivers. I consider it appropriate that these rules allow for the operation and maintenance of existing structures as a permitted activity. Also appropriate is where these rules allow for construction of bridges and culverts, as either permitted activities where certain conditions can be met, or otherwise as a discretionary activity. Finally, Transpower supports the hazardous substances rules (Rules 5.162 to 5.169).

**Other legislation and plans**

- 4.8** The ECan Act replaced the elected members of the Canterbury Regional Council (**CRC**) with commissioners who currently act as the Council's governing body, and provided CRC with certain powers with respect to the management of fresh water in the Canterbury Region.

Part 2 of the RMA still applies to the performance and exercise by the CRC of its additional functions and powers under the ECan Act.

- 4.9** Schedule 1 to the ECan Act contains the vision and principles of the Canterbury Water Management Strategy (**CWMS**), which aims to enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework. The CWMS sets first and second order values and principles, and has established ten sub-regional zone committees to determine region-wide objectives in the most appropriate way for that particular catchment or catchments. The pLWRP implements these objectives insofar as they have been developed by each zone committee.

## **5. NES FOR ASSESSING AND MANAGING CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH**

- 5.1** The NESCS provides a nationally consistent set of planning controls and soil contaminant values, and ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed. Where necessary the NESCS provides for land remediation or containment of contaminants to make the land safe for human use.
- 5.2** All territorial authorities (district and city councils) are required to give effect to and enforce the requirements of the NESCS. The NESCS provides for permitted activities for various activities subject to certain requirements. Generally, resource consent is required for activities where a development is proposed that has the potential to expose contaminated soil on a site in a way or to an extent that there is a potential for a risk to human health. The NESCS does not affect existing land uses.
- 5.3** The NESCS is relevant for Transpower operations, since electricity transformers contain oil. Substation, switchyard and powerstation sites are therefore contained on the Hazardous Activities and Industries List (**HAIL**) and considered under the NESCS as pieces of

land on which an activity or industry described in the HAIL is being undertaken (clause 5(7) of NESCS).

**5.4** The NESCS regulations deal with territorial authority functions under section 31 of the RMA, not regional council functions under section 30 of the RMA. It is my opinion that the NESCS, through the functions of territorial authorities, provides sufficient regulation and control of activities proposed on areas of potentially contaminated land as they relate to health effects and drinking water. It is appropriate for regional policies and rules to help set the framework for the district and city plans for health on these matters, but I do not see a need to replicate those regulations, or to set more onerous requirements than those set out in the NESCS.

**5.5** For example, the NESCS does not apply to existing uses of land; it is triggered only where there is to be an investigation, proposed change of use, or development of that land. Conversely the pLWRP rules apply to the existing uses of potentially contaminated land, and I believe that greater consistency between the NESCS and the pLWRP with respect to health effects would be achieved if the pLWRP rules also recognise where existing uses are not creating off-site health effects. This would also provide greater consistency between the pLWRP and the RPS, in turn allowing the pLWRP to give better effect to the NPSET. There are a number of ways to deal with this, which are detailed in various suggested changes to wording within the pLWRP throughout the remainder of my evidence.

## **6. REGULATORY IMPACT OF LEVEL OF CONTROL**

**6.1** Transpower supports the intent of the provisions in the pLWRP, and recognises the need to protect against the potential for adverse effects to impact on land and water as a result of potentially contaminated land. In order to cover these potential effects, many rules in the pLWRP contain a reference to potentially contaminated land within the conditions that excludes such land from permitted activity status. This would exclude any Transpower substation or switchyard site from achieving compliance, which I consider to be overly onerous.

- 6.2** The proposed provisions capture activities based simply on whether the site is potentially contaminated and take no explicit account of the risks of any contaminants being transported off the site or entering ground or surface water. There is no acknowledgement of sites where mitigation measures are in place, such as bunding, capping, or the use of oil interceptors.
- 6.3** In particular for Transpower sites, the oil within the transformers is managed to ensure that the transformers remain in operation and there are no electricity outages as a result of transformer failure. Transpower manages all substation and switchyard sites on a nationally consistent basis in accordance with a number of guidelines and standards to minimise the risks from oil filled equipment on the substation sites. Specific internal Transpower guidelines include:
- (a) TP.SS 02.84 Station Oil Services Maintenance,
  - (b) TP.GS 54.01 Oil Spill Management,
  - (c) TP.SS 02.41 Station Inspections,
  - (d) TP.SS 02.49 Maintenance Environmental Consent Considerations, and
  - (e) TP.SS 06.40 Hazardous Substances Inspections.
- 6.4** Essentially all equipment that contains more than 2,000 litres of oil is required to have spill mitigation facilities at the site (for example, bunding and spill containment). New installations generally also use plate separators to separate oil from water in the case of a spill. Transformers on a substation site can contain up to 70,000 litres of oil. Other equipment, such as lower voltage transformers contain much less, around 100 to 600 litres. Details were provided in Mr McMahon's evidence regarding the location of transformers on impervious surfaces so that any leakage of oil cannot seep into soil or groundwater. In any event, it is prudent to avoid the loss of oil from transformers as this can lead to equipment failure and power outages.
- 6.5** The rules that contain reference to "potentially contaminated land" as a condition that would exclude such sites from permitted activity

status are Rules 5.7, 5.9, 5.55, 5.69, 5.72, 5.76 and 5.77. In its further submission, Transpower supports the submission of Mobil New Zealand Limited, BP Oil New Zealand Limited, and Z-Energy Limited, which requests the deletion of the references to “potentially contaminated land” within those rules.

- 6.6** Transpower also clarified in its further submission that if the references to “potentially contaminated land” in those rules are to be retained, that another remedy is for each rule, after the words “potentially contaminated land”, the following be inserted:

, unless:

- (a) the source of potential contamination is from a necessary component of regionally significant infrastructure, and
- (b) good practice guidelines are followed to mitigate the risk of any hazardous substance entering land or water, and
- (c) the good practice guidelines are made available to the CRC for review.

- 6.7** In my opinion this is a reasonable solution to the matter. If the deletion of the words “potentially contaminated land” is not acceptable to the CRC, then this provides more specific relief by acknowledging regionally significant infrastructure and the good practice that is associated with such sites. It also achieves greater consistency with the RPS policies referred to earlier, and will give better effect to the NPSET with regard to providing for sustainable, secure and efficient electricity transmission.

- 6.8** Recommendation R5.7 of the Officers' report is specific to Rule 5.7 and puts forward an alternative relief by inserting at condition 6(b) an exception for contaminated or potentially contaminated land where a discharge permit or land use consent for storage of hazardous substances exists. In my opinion, the amendments are problematic and introduce more questions than answers.

- 6.9** For example, is the “discharge permit” for stormwater, wastewater, or some other containment discharge? Does the rule take into account land use consents for the storage of hazardous substances that may

also be required from a territorial authority? Why should a permitted activity under the NRRP not also deserve an exemption? It is my view that the amendment may prove difficult to administer, whereas I believe that an exception to a condition to a rule should be straightforward and easy to identify in any given situation. In my opinion, the relief requested by Transpower (set out in in paragraph 6.6 of my evidence) is more appropriate and will give better effect to the NPS and the RPS with respect to national and regionally significant infrastructure.

**6.10** Further, of those Rules listed above, the following have not had any change recommended in the Officers' report that provides the relief requested by Transpower: 5.55 (Land Drainage Water); 5.72 (Stormwater); and 5.76 and 5.77 (Other Minor Contaminant Discharges). Further to this, Rule 5.92 (Water for Construction and Maintenance) has a similar exclusion at Condition 2, and although Transpower's original submission did not include specific commentary on that condition of the rule, it did raise other aspects of the rule, which are discussed at paragraphs 9.1 - 9.4 of this evidence. I consider that the relief requested for the other rules, above, that have an exclusion for potentially contaminated land should also be applied to Condition 2 of Rule 5.92 in order to provide consistency within the rule framework.

**6.11** In my opinion, the relief requested by Transpower in paragraph 6.6 would be appropriate to apply to these rules without undermining the intent of the rules with respect to minimising the potential adverse effects surrounding potentially contaminated land.

## **7. STORMWATER AND WASTEWATER DISCHARGE PROVISIONS AND SITES IDENTIFIED AS "POTENTIALLY CONTAMINATED LAND"**

### **Stormwater**

**7.1** Rule 5.72 of the pLWRP controls the discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter water as a permitted activity provided a number of conditions are met. If any of the



conditions are not met, a discharge permit would be required for a non-complying activity. Condition 2 of Rule 5.72 is that the discharge is not from or onto potentially contaminated land.

- 7.2** As mentioned previously, Transpower substation, and switchyard sites are classified as HAIL sites and therefore 'potentially contaminated', so Rule 5.73 would require each Transpower site in Canterbury to gain a discharge permit for stormwater as a non-complying activity. Transpower holds a number of stormwater discharge permits for its sites and these are in relation to the area of the site that has the potential contamination, that is, the bunded areas around transformers.
- 7.3** I consider a non-complying activity status to infer a generally inappropriate activity, and that there will need to be some exceptional case made for the granting of consent. Given the responsible management and control of Transpower sites as described in the evidence of Mr McMahon, the spill mitigation measures in place, and the fact that they are part of regionally and nationally significant infrastructure, I consider this to be an inappropriate categorisation.
- 7.4** In my opinion this activity status does not give effect to the NPSET, particularly Policies 2, 3 and 5 which require decision makers to provide for the effective operation, maintenance, upgrading and development of the electricity transmission network. Further, I consider that it also does not give effect to the policy framework of the RPS on the matter of regionally significant infrastructure.
- 7.5** If either of the proposed options for relief sought under paragraphs 6.5 and 6.6 of my evidence are accepted, this would improve the situation. However, I consider that to leap directly from permitted activity status to non-complying is still overly severe and ignores the fact that there are always varying degrees of non-compliance, as well as varying levels of effects depending on the condition of the rule that is not complied with.
- 7.6** This approach also has little regard for the fact that these are essential pieces of infrastructure that are often long-established and

operate with little to no adverse environmental impact in terms of the effects that the rule seeks to regulate.

**7.7** Finally, Policy 17.3.3 of the RPS deals with situations where contaminants may remain in the land. It allows contaminants to remain in the land where discharges of contaminants beyond the site are not likely to result in significant risk to human health or the environment. Mr McMahon's evidence concludes that there is only a very small chance of an oil spill from its assets, due to all of the mitigation measures adopted. Further Mr McMahon explains that even if there is a spill, measures such as oil container bunds, oil interceptor tanks, oil treatment processes, oil water separators and float switches, and high level alarms, significantly mitigate the likelihood if any oil leakages into surrounding land or water. In my view, Rules 5.72 and 5.73 are therefore inconsistent with Policy 17.3.3 by imposing such onerous consenting requirements in such circumstances.

**7.8** There are two areas of relief requested by Transpower in regard to this rule. One is if the references to 'potentially contaminated land' in Rule 5.72(2) are to be retained, that another remedy is, after the words "potentially contaminated land", the following be inserted:

unless:

- (a) the source of potential contamination is from a necessary component of regionally significant infrastructure, and
- (b) good practice guidelines are followed to mitigate the risk of any hazardous substance entering land or water, and
- (c) the good practice guidelines are made available to the CRC for review.

**7.9** This provides an alternative solution to the matter of the potentially contaminated nature of Transpower sites triggering the need for resource consent for a non-complying activity to allow existing stormwater discharges to continue. If the deletion of the words "potentially contaminated land" is not acceptable to the CRC, then this provides more specific relief by acknowledging regionally significant infrastructure and the good practice that is associated with

such sites. It also achieves greater consistency with the RPS policies referred to earlier, and will give better effect to the NPSET with regard to providing for sustainable, secure and efficient electricity transmission.

**7.10** Where a site has resource consent (or permitted activity status under the NRRP) and the appropriate measures in place (such as bunding, containment, and spill procedures), I consider it to be an undue burden to require additional stormwater discharge consents for these existing sites

**7.11** The other relief requested is to ensure that there is a category of activity other than non-complying, in circumstances where there is a non-compliance with a condition to Rule 5.72. In my opinion it is unreasonable for any level of non-compliance with conditions of Rule 5.72 to require consent for a non-complying activity. Further, given Transpower's assets are considered regionally significant infrastructure, non-complying activity status does not give effect to the NPSET or RPS policies nor allow for the efficient operation of those assets. I consider that Rule 5.73 should require resource consent for a discretionary or restricted discretionary activity, or that interim activity status(es) of restricted discretionary, or discretionary, or both, is necessary to provide for the varying degrees of non-compliance that can occur.

**7.12** Recommendation R5.72 of the Officers' report takes into account the concerns raised in submissions, and recommends that Rule 5.72 be split into two parts to reflect the difference between discharges of stormwater to surface water, and those to groundwater. Recommended new Rules 5.72A and 5.72B deal with discharges to groundwater and still includes exclusions (at Condition 2(a) in each case) for stormwater discharges from, into or onto potentially contaminated land.

**7.13** Recommendation R5.73 of the Officers' report accepts that there may be circumstances where a discharge does not meet a condition of Rule 5.72, where the effects of that non-compliance are minor. It recommends a discretionary status for non-compliance with the

conditions of the new Rules 5.72A and 5.72B. I consider this to be appropriate relief on the matter of the activity status in the case of non-compliance with the rule(s).

## **Wastewater**

- 7.14** Rule 5.7 of the pLWRP controls the discharge of wastewater from an existing on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water as a permitted activity, provided a number of conditions are met. If any of the conditions are not met, a discharge permit would be required for a restricted discretionary activity. Condition 6(b) is that the discharge is not onto or into land that is potentially contaminated. Again it is the 'potentially contaminated' aspect that triggers the need for consent for ablution facilities on Transpower substation and switchyard sites.
- 7.15** Most of Transpower's substation sites are in remote and unserved areas without the ability to connect to Council infrastructure. These sites are generally unmanned and have existing wastewater systems to provide for ablution facilities which are used on an irregular basis, such as during inspection and maintenance activities. However, Rule 5.7 of the pLWRP would require Transpower to obtain discharge permits for these existing wastewater systems, which I consider to be unnecessary in terms of the mitigation of effects. My understanding is that Rule 5.7 was intended to capture discharges that might pass through contaminated land, or which would entrain contaminants from the site in the discharge. These are existing sites, and where permits are already in place, I do not believe the requirement to gain another discharge permit is reasonable, nor necessary in terms of effects.
- 7.16** If either of the proposed options for relief sought under paragraphs 6.5 and 6.6 of my evidence regarding the wording "potentially contaminated land" within the rule are accepted by the CRC this would resolve the issue with respect to condition 6(b) of Rule 5.7. However, Transpower would also be affected by Condition 5 of Rule 5.7, which requires the discharge to be within the area marked "Septic Tank Suitability – Area A" on the Planning Maps. The majority of Transpower's 21 substation and switchyard sites in the

Canterbury region discharge wastewater via a septic tank, and only four of these fall within the Septic Tank Suitability – Area A. This means that the vast majority of substation sites in Canterbury will require a discharge permit as a restricted discretionary activity under Rule 5.8. Again I consider this to be overly onerous especially when taking account of the intermittent use and very low volumes of discharge from unmanned substation sites.

**7.17** Transpower requests the following amendment to Rule 5.7(5):

*Except where located on and originating from unmanned sites for the purposes of inspection, maintenance and installation of regionally significant infrastructure, the discharge is within the area marked "Septic Tank Suitability - Area A" on the Planning Maps;...*

**7.18** Recommendation R5.7 of the Officers' report includes a deletion of Condition 5 relating to the area marked "Septic Tank Suitability – Area A" on the planning maps. In my opinion this recommendation offers a similar relief to that being sought by Transpower and will ensure that existing sites with relevant resource consents in place will not be subject to additional consenting requirements.

## **8. EARTHWORKS AND EXCAVATIONS**

**8.1** The pLWRP provides a definition for 'earthworks', and also for 'disturbed land'. Transpower's submission supports these definitions and requests that they remain unchanged. Policy 4.16 requires the discharge of contaminants from contaminated sites to be appropriately managed to avoid the contamination of groundwater.

**8.2** Rule 5.155 provides for the use of land to excavate greater than 100m<sup>3</sup> of material within any 12 month period over an unconfined or semi-confined aquifer as a permitted activity. The conditions to Rule 5.155 require the excavation to be no deeper than 1 m above the highest known groundwater level for the site, and that it shall not be within 50 m of a river, lake or wetland, or within the Christchurch Groundwater Protection zone.

- 8.3** Transpower's submission is that their existing and future operations require earthworks that may not always comply with Rule 5.155, but that are usually discrete and localised. Transpower's transmission structures, including structures both within 50 m of, and in the beds of lakes and rivers, need maintenance over the life of the infrastructure, which is specifically recognised in the NPSET. These works also include work on foundations and it is my understanding that Transpower's recent experience has been that 100m<sup>3</sup> is not always appropriate. Non-compliance with Rule 5.155 would require consent as a discretionary activity under Rule 5.156.
- 8.4** Rule 5.157 provides for excavation in or above the Coastal Confined Gravel Aquifer System as a permitted activity subject to there being at least 1 m of undisturbed material between the base of the excavation and Aquifer 1, and that the excavation does not occur within 50 m of a river, lake or wetland. The depth of foundations for Transpower's towers is approximately 6 m to 8 m and Transpower needs access to those foundations. In the area covered by the Coastal Confined Gravel Aquifer where there is particularly shallow groundwater, there are numerous foundations for Transpower structures that are located below the water table. Therefore, compliance with Rule 5.157 cannot be achieved for fundamental maintenance activities and consent would be required for a non-complying activity under Rule 5.159.
- 8.5** As discussed earlier, it is my opinion that a non-complying activity status infers a generally inappropriate activity, and that there will need to be some exceptional case made for the granting of consent. The responsible management and control of Transpower sites has been detailed earlier, and is in accordance with Policy 4.16(a). However, I acknowledge that Policy 4.16(c) requires "*sufficient thickness of undisturbed sediment in the confining layer over the Coastal Confined Aquifer System to prevent the entry of contaminants into the aquifer*".
- 8.6** Some parts of Christchurch have groundwater within 1 m of the surface, and Transpower infrastructure is located in these areas for which essential maintenance is required. My understanding is that Transpower frequently work with shallow groundwater and that there

is recognition of the importance of avoiding the potential for adverse effects, in accordance with the intent of the rules. I consider that given the regional and national significance of Transpower's network, and the importance of adequate upgrade and maintenance of it, a non-complying activity status is inappropriate.

- 8.7** Further, the policy framework of the pLWRP, in particular Policy 4.16(c) would make the granting of consent under the threshold tests of section 104D of the RMA difficult to argue.
- 8.8** For instance, if Transpower were to apply for an excavation into groundwater for essential maintenance of infrastructure that was located within the Coastal Confined Gravel Aquifer System, this would be a non-complying activity, and it may well be publicly notified (depending on the s95 RMA tests). With Policy 4.16(c) acknowledged to be of key relevance it may be determined that the activity is contrary to the policy framework (thereby failing the first of the section 104D threshold tests). Then the activity is considered as to whether the adverse effects on the environment will be minor (the second section 104D threshold test).
- 8.9** Although in my opinion a minor effects argument could hold in such cases, I believe this would present a tenuous situation for a decision maker where consent for routine maintenance on infrastructure of regional and national significance may need to be declined.
- 8.10** Finally, I do not believe that the policy and rule framework of the pLWRP gives effect to the NPSET, in particular, Policies 2, 3 and 5, which require decision makers to recognise and provide for the effective operation, maintenance, upgrading and development of the network, and to consider the constraints imposed in terms of the technical and operational requirements of the network. I also consider that the policy and rule framework raises inconsistencies with Policy 16.3.4 of the RPS, which encourages a reliable and resilient electricity transmission network, and enables the operational, maintenance, upgrade, and development of the network provided that adverse effects are avoided, remedied or mitigated. To this end there

are a number of ways to achieve a more workable framework for the earthworks rules.

### **Recommended relief**

- 8.11** One solution would be to provide for a new rule that allows earthworks greater than 100m<sup>3</sup> in any 12 month period when necessary for the completion of upgrade, maintenance and repair work on regionally or nationally significant infrastructure. This could be written in such a way as to make the activity permitted, or subject to a consent requirement whereby the potential adverse effects are dealt with as matters for discretion.
- 8.12** Another option might be to exclude the completion of routine upgrade, maintenance and repair work on regionally or nationally significant infrastructure from the definition of earthworks. However, this approach may be too permissive, resulting in such work being exempt from Rules 5.155 to 5.159.
- 8.13** For new infrastructure I consider that it is appropriate for consents to be required when certain thresholds are triggered. However, the rules as written are still more restrictive than I consider necessary in order to give effect to the NPSET. It is my opinion that the use of controlled or restricted discretionary activity status under Rules 5.156, 5.158 and 5.159 is more appropriate in the case of new electricity transmission infrastructure installations.
- 8.14** Recommendation R5.155 of the Officers' report takes account of submissions requesting that the activity status be changed, particularly considering the need for regular resource consents for the Christchurch rebuild, acknowledging that it is difficult to justify non-complying activity status for some types of excavation. Rules 5.155 to 5.159 have been recommended to be reduced to two rules, with a re-write of Rule 5.155 that results in the 100 m<sup>3</sup> limit being included as a condition within the Rule. Rule 5.156 requires resource consent for a restricted discretionary activity where there is a non-compliance with any of the conditions of Rule 5.155.



**8.15** In my opinion, this is an appropriate approach and would provide for the relief sought by Transpower.

## **9. OTHER MATTERS**

### **Site Dewatering**

**9.1** From time to time it is necessary for Transpower to dewater a site during construction works. Transpower supports Rules 5.92 and 5.93, but requests an amendment to the wording of Condition 7 of Rule 5.92.

**9.2** Condition 7 currently requires the concentration of suspended solids in any discharge to a surface water body to not exceed 50 g/m<sup>3</sup>. Transpower requests this concentration to be brought in line with other rules that seek to control the suspended solids in a discharge to no more than 100 g/m<sup>3</sup> (Rule 5.92(6)(b)(ii) regarding stormwater, and Rule 5.150(4)(b) regarding vegetation clearance and earthworks in erosion-prone areas).

**9.3** Transpower's submission is that there does not seem to be a reason to have a different suspended sediment concentration for dewatering, particularly since this is a temporary activity, whereas stormwater discharges are ongoing. It has therefore sought that Condition 7 of Rule 5.92 should be amended as follows:

*The concentration of suspended solids in any discharge to a surface water body does not exceed ~~50~~ 100 g/m<sup>3</sup>.*

**9.4** This relief has been acknowledged favourably in the Officers' report (at page 273), but has not been brought over into Recommendation R5.92. In my opinion, the relief sought by Transpower is appropriate.

### **Gravel extraction and vegetation burning**

**9.5** Transpower requests an amendment to Policy 4.91 regarding gravel removal from the beds of rivers so that protection of infrastructure is provided for. Gravel extraction Rule 5.125 sets a permitted threshold

for excavation near transmission towers and poles, which I consider is appropriate. It follows that the policy on gravel removal should recognise and require the protection provided for in the rules.

**9.6** Transpower seeks an amendment to Policy 4.91 (b) as follows:

*(b) the activity is undertaken in ways which do not induce erosion, adversely affect significant regional infrastructure, water quality...*

**9.7** Similarly with Policy 4.18 regarding vegetation burning as a land management tool, Transpower's submission is that "burning off" too close to transmission lines can result in significant adverse effects such as power outages. This is because dense smoke can cause contaminants to build up on the insulators which gives rise to a risk of an outage. An addition to the policy would require consideration of such effects to be taken into account when issuing permits. Policy 4.18 requires that in the Hill and High Country, the use of vegetation burning as a land management tool avoids a number of adverse effects. Transpower request the following addition to the effects that are to be avoided under Policy 4.18:

*d. adverse effects on regionally significant infrastructure.*

**9.8** In my opinion this addition to Policy 4.18 will give better effect to the NPSET and RPS on the matter of regionally significant infrastructure, by acknowledging the dangers of vegetation burning too close to transmission lines and other infrastructure. The Officers' report acknowledges the merit of this addition at page 409, but considers that a change to the policy is not warranted due to the control not currently being included in the Land and Water Management Plan, and that it will have little influence unless it is also included in the relevant rules.

**9.9** I agree that the relief would have more influence if also contained in the rules, however the inclusion of this matter in Policy 4.18 will at least alert those using the pLWRP to the issue of vegetation burning

in close proximity to such infrastructure. It will also allow the matter to be taken into consideration when assessing resource consent applications against the objectives and policies, so in my opinion this degree of protection is appropriate. I do not consider that the lack of this control within the Land and Vegetation Management Plan to be a relevant consideration as to whether it is prudent to include it in the pLWRP.

## **10. SECTION 32 AND THE WIDER STATUTORY FRAMEWORK**

- 10.1** Section 32 of the RMA 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.
- 10.2** Transpower's submission is generally supportive of the objectives within the pLWRP. I have highlighted areas within my evidence where in my opinion there are more appropriate ways for the policies and rules to best achieve the objectives. There are three key objectives affecting the development, operation and maintenance of the National Grid, Objectives 3.16, 3.20 and 3.23. Objective 3.23 requires activities to operate at "good practice" or better. Transpower's submission is supportive of this objective.
- 10.3** Objective 3.16 deals with infrastructure of national or regional significance, and its efficient and effective operation, ongoing maintenance, repair, development and upgrading. A number of policies and rules have been requested to be amended to better achieve this objective, including Policy 4.23 and Rules 5.72, 5.9, 5.55, 5.69, 5.72, 5.77 and 5.92 with respect to issues surrounding the wording of rules with exceptions in terms of contaminated land. Also with specific reference to the disposal of wastewater and stormwater, amendments have been requested to better achieve Objective 3.16. Finally, an amendment is requested to the wording of Policy 4.18 in order to better protect against adverse effects on regionally significant infrastructure with respect to vegetation burning.

- 10.4** Objective 3.20 is concerned with the extraction of gravel from riverbeds and includes the need to protect infrastructure. A suggested amendment to Policy 4.91 is requested to better reflect the intent of Objective 3.20, and also 3.16 in terms of reference to significant regional infrastructure.
- 10.5** In some cases I consider that the rules of the pLWRP do not adequately give effect to the NPSET, and in other cases are not consistent with or do not give effect to the RPS. I consider that the amendments requested by Transpower to policies or rules of the pLWRP will give better effect to the NPSET, and the RPS. In my opinion changes requested regarding potentially contaminated land, and particularly with respect to the discharge of stormwater and wastewater from Transpower substation sites, will achieve greater consistency with specific policies of the NPSET, and the RPS. Similarly, changes requested to the rules regarding earthworks and excavations will in my opinion give better effect to specific policies of the NPSET.

**Jane West**

**4 February 2013**

## **REFERENCES**

Electricity Act 1992

Resource Management Act 1991

Resource Management (Forms, Fees and Procedures) Regulations 2003

Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010

National Policy Statement on Electricity Transmission 2008

National Environmental Standards for Electricity Transmission Activities 2010

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

Canterbury Regional Policy Statement 2013

Proposed Canterbury Land and Water Plan 2012

Canterbury Water Management Strategy 2009