

K4: Western Road substation and training facility		
Designation unique identifier	<u>TPR-1</u>	
Designation purpose	<del>Western Road</del> Substation and training facility	
Site identifier	Legal description	Lot 1 DP 55948
	Physical address	Rotowaro Road, <u>Rotowaro</u>
	Site name	Western Road substation and training facility
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	No	
Additional information	N/A	

K2, DES0008/18: Hamilton to Meremere B Underground Transmission Line Cable		
Designation unique identifier	TPR-2	
Designation purpose	<del>National Grid Underground 110 kV Cables and Aboveground Cable Termination Structures and Ancillary Works – Protection only</del> <u>Underground Transmission Line Cable</u>	
Site identifier	Legal description	<del>Lot 1 DPS 75657, Lot 2 DP 519326, Lot 4 DPS 64084</del>
	Physical address	<u>Puketaha Road, Puketaha</u>
	Site name	<u>Hamilton to Meremere B Underground Transmission Line Cable</u>
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	No	
Additional information	N/A	

### Condition

1. ~~As soon as practicable following completion of construction of the underground cable, the aboveground cable termination structures and ancillary works, the requiring authority shall provide as-built plans to the Council.~~

#### Advice Note

~~Where section 176 approvals are required by utility operators (other than the requiring authority) for works within the designation the requiring authority will provide a timely response, in order to facilitate co-ordination of section 176 approvals sought by the utility operator and the Corridor Access Request process.~~

K3: Huntly Outdoor Switchyard		
Designation unique identifier	TPR-3	
Designation purpose	Huntly Outdoor Switchyard	
Site identifier	Legal description	Section 1 SO 59597, Pt Lot 1 DPS 73530
	Physical address	<del>Power station</del> Te Ohaki Road, Huntly
	Site name	Huntly Outdoor Switchyard
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	No	
Additional information	N/A	

K4: Meremere Switching Station		
Designation unique identifier	TPR-4	
Designation purpose	Meremere Switching Station	
Site identifier	Legal description	Section 1 SO 59595
	Physical address	<del>Power Station</del> Taniwha Street, Meremere
	Site name	Meremere Switching Station
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	No	
Additional information	N/A	

K5: Te Kowhai Substation		
Designation unique identifier	TPR-5	
Designation purpose	Te Kowhai Electricity Substation	
Site identifier	Legal description	Lot 2 Deposited Plan 71444
	Physical address	196 Bedford Road, Te Kowhai
	Site name	Te Kowhai Substation
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	Yes	
Additional information	N/A	

## Conditions

### Description of works

1.4.1 The works to give effect to the designation of the substation and the line shall be generally in accordance with the plans and information submitted by Transpower New Zealand Limited in support of the Notice Requirement and, including at the hearing, and the following plans: ~~of the proposed works, and subject to any amendments required by the conditions of this recommendation that follow:~~

- a) Substation Site Designation Plan: 106480852/40/55
- b) Connecting Transmission Line Route Designation Plan: 106480852/40/57

### Outline Plan

2.1 ~~For any new construction works that have not been addressed in an earlier approved Outline Plan of Works but remain within the scope of the designation, Transpower shall submit an Outline Plan of Works as required by s176A of the Resource Management Act 1991 to Council before work commences.~~

~~Transpower New Zealand Limited shall submit an outline plan or plans to the Waikato District Council pursuant to the section 176A of the Resource Management Act 1991 prior to the commencement of construction works on the substation site or transmission line route. In addition to any other matters that the Council can require to be included in the Outline Plan or plans in accordance with section 176A(3)(f), the plan(s) shall incorporate the following documents as identified in subsequent conditions:~~

#### ~~Substation~~

- ~~a) Landscape and Visual Mitigation Plan~~
- ~~b) Design Details for Substation Lighting~~

- ~~c) Transformer Bund Design Plan~~
- ~~d) Oil Spill Management and Contingency Plan~~
- ~~e) Earthworks and Construction Management Plan~~
- ~~f) Signage Plan~~
- ~~Substation Entrance and Access~~
- ~~g) Traffic Management Plan~~
- ~~h) Design Plans for the Substation Entrance, Access Road and Parking~~
- ~~i) Earthworks and Construction Plan~~
- ~~j) Signage Plan~~
- ~~Transmission Line Corridor~~
- ~~k) Traffic Management Plan~~
- ~~l) Earthworks and Construction Management Plan~~
- ~~m) Signage Plan~~
- ~~n) Design Plan for Tower 5~~

### **Limits to the Scope of Designation**

~~2. 3.1~~ The scope of activities to and works covered by the designation shall be limited in respect of the following:

- a) The substation switchyard is to be no greater than 1 hectare in area.
- b) No high voltage electrical substation structures are to be located outside the switchyard, other than the earth grid.

### **Height**

~~3. 4.1~~ The height of all the transmission towers shall be no greater than 35 metres.

~~4. 4.2~~ The height of equipment and buildings within the substation switchyard shall be as followed:

- a) Lighting and lightning poles – no greater than 16 metres,
- b) Telecommunication tower/pole – no greater than 40 metres,
- c) Line termination structure(s) – no greater than 30 metres,
- d) Except as otherwise provided, no building or equipment shall be greater than 10 metres.

### **Transmission Tower Finish**

~~5. 4~~ The structural components and conductors of all transmission towers will have a dulled grey matt finish.

### **Substation Switchyard**

~~6. 6.1~~ The gravel material to be placed on the base of the substation switchyard shall be of a grey colour.

### **Resource Consents**

~~7.1~~ Prior to commencement of construction works, Transpower New Zealand Ltd shall obtain all necessary resource consents from the Waikato Regional Council and the Waikato District Council

### **Landscape Mitigation**

~~7.8.1~~ Transpower shall satisfy all requirements in the Landscape and Visual Mitigation Plan submitted August 2004 as part of the original Outline Plan process, including the following on-going conditions: A landscape and Visual Mitigation Plan shall be prepared for the substation site and submitted within 6 months of confirmation of the designation to the Environmental Services Group Manager of District Council for approval in accordance with Condition 2.1. Included in the plan are ongoing requirements relating to:

- ~~a. Implementation of strategies within the approved maintenance schedule for weed and pest control~~
- ~~b. Maintenance of stock proof fencing (e.g. 7 wire post and batten fence) of all landscape areas to prevent undergrazing.~~

~~8.8.2~~ The Landscape Mitigation Plan provided to Council shall include all mitigation measures outlined in the Notice of Requirement documentation and on the Hamilton New Point of Supply Indicative Planning Concept Plans— June 2003 (Figure 8) and September 2003 (Figure 11) prepared by Boffa Miskell Ltd. Figure 11 is to be amended to illustrate stock fencing around perimeter of all existing and proposed planting, and to include other fast growing species in addition to Pinus radiata in the areas of "Woodlot Planting". The Landscape Mitigation Plan shall also include:

- ~~a. The identification of the botanical name, common name, size at time of planting, mature height, quantities and location of all mitigation planting.~~
- ~~b. The height and location of any earth bunds or mounds created for visual, noise or other mitigation purposes.~~
- ~~c. An implementation strategy identifying when the mitigation works will be undertaken.~~
- ~~d. A maintenance schedule which will include strategies for weed and pest control.~~
- ~~e. All landscape areas are to be appropriately stock fenced (e.g. 7 wire post and batten fence) to prevent undergrazing.~~

~~9.8.3~~ Transpower New Zealand Ltd shall report, annually for the first three years and then at five yearly intervals, to the Environmental Services Group Manager of the Waikato District Council, on the established landscaping and planting works approved as part of the original undertaken Outline Plan process and any subsequent landscaping amendments approved by Council. The report shall describe what landscape mitigation work has occurred, any problems experienced, any remedial action as a consequence, the nature of ongoing work in progress, and the aims and objectives for the ensuing reporting period.

~~10.8.4~~ With the exception of the "Woodlot Planting" (as defined in the Hamilton New Point of Supply Indicative Planting Concept - September 2003 (Figure 11)), all landscape mitigation planting shall be maintained in a satisfactory manner for the duration of the designation. Once a continuous canopy has been established, this maintenance shall include replanting of any gaps created by death of or damage to trees, in order to allow a continuous canopy to re-establish. The proposed "Woodlot Planting" shall be maintained until such time as the "Infill Terrace Planting" and "Permanent Screen Planting" has become sufficiently established to replace its screening function.

~~11.8.5~~ The landscape mitigation plan shall be reviewed and amended as necessary by Transpower New Zealand Ltd, subject to the approval of the Environmental Services Group Manager of Waikato District Council, or alternatively, every 15 years from the date of the confirmation of the designation (2004). Transpower New Zealand Ltd shall strictly adhere to the plan and all works required by the plan and shall undertake all works to the satisfaction of the Council.

## Lighting

~~12.9.4~~ The illuminance of the site lighting installations shall not exceed 5 lux (lumens per square metre) spill (horizontal or vertical) of light at any window of a dwelling located on ~~the balance property or~~ adjacent properties.

~~13.9.2~~ Prior to commencement of construction works, ~~Design Details for Substation Lighting shall be submitted for approval to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.1.~~

(a) Subject to (b) below, the substation lighting shall be in general accordance with the Design Details for Substation Lighting submitted to Council in November 2004 as part of the original Outline Plan process.

(b) For any new lighting that has not been addressed in the earlier approved Outline Plan process but remains within the scope of the designation, Transpower shall submit an Outline Plan of Works as required by s176A of the Resource Management Act to Council before work commences.

## Noise

~~14.40.4~~ The noise level from activities within the substation site shall not exceed the following limits when measured on ~~the~~ any boundary of this site:

- a) 45dBA (~~L40 LAeq~~) Monday to Friday 7:00am to 7:00pm
- b) 45dBA (~~L40 LAeq~~) Saturday 7:00am to 6:00pm
- c) 35dBA (~~L40 LAeq~~) At all other times including ~~P~~public ~~H~~olidays

Note: The above limits include a 5dBA penalty for the tonal component of noise emissions from transformers. No further adjustment for the presence of special audible characteristics is required.

~~15.40.2~~ Subject to the allowance already made in ~~40.4~~ 14. for special audible characteristics, noise levels shall be measured in accordance with the requirements of 'NZS6801:~~1994~~2008 Measurement of Environmental sound' and assessed in accordance with the requirements of 'NZS6802:~~1994~~2008 Acoustics – Environmental Sound.

~~16.~~ Noise from construction activities shall not exceed the limits recommended in, and shall be measured and assessed in accordance with, 'NZS6803:~~1999~~ Acoustics – Construction Noise'.

Noise from any construction, maintenance, or demolition activity must be measured, assessed and managed in accordance with the requirements of 'NZS 6803:1999 Acoustics Construction Noise'.

~~10.3~~ Within 3 months of the substation becoming operational, ~~n~~Noise levels at the boundary of the designated substation site shall be measured to determine compliance with Condition 10.1 and the results shall be forwarded to the Environmental Services Group Manager of Waikato District Council within 1 month of the measurements being completed.

~~10.4~~ If the results of the noise measurements taken as required by Condition 10.3 do not comply with the standard specified in Condition 10.1, Transpower New Zealand Ltd shall carry out necessary noise attenuation measures (e.g. the installation of acoustic barriers) within three month and repeat noise level measurements at the boundary of the designated site within three months of the noise attenuation measures being in place. Measurements demonstrating compliance shall be forwarded to the Environmental Services Group Manager of Waikato District Council within 1 month of the measurements being completed.

~~10.5~~ If any change in type or increase in numbers of transformers takes place on the substation site after the date of confirmation of the designation, the Council shall be advised and the procedures as set out in Conditions 10.3 and 10.4 above shall be undertaken to demonstrate compliance with Condition 10.1

## EMF (Electromagnetic Fields)

~~17. 41.1 In those areas of the site to which the public has access, electric and magnetic field strengths shall comply with the guidelines for public exposure to electric and magnetic fields as published in 1998 by the International Commission on Non-Ionizing Radiation Protection.~~

The Electromagnetic Fields (EMF) at or beyond the secure boundary of the substation site shall not exceed the International Commission on Non-Ionising Radiation Protection Guidelines, for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 99(6):818-836; 2010) (ICNIRP guidelines) to public reference levels of 5 kv/m for electric fields and 200 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).

~~41.2 Within 3 months of the substation becoming operational, EMF levels in those areas of the site to which the public has access shall be measured to determine compliance with the guidelines for public exposure as detailed in Condition 11.1 and the results shall be forwarded to the Environmental Services Group Manager of Waikato District Council within 1 month of the measurements being completed.~~

## EMR (Electromagnetic Radiation)

~~18. 44.3~~The Any Telecommunications facility on the site shall be operated so that it satisfies the requirements of 'NZS 2772.1: 1999 Radiofrequency fields – Maximum exposure levels – 3 kHz to 300 GHz' in respect of all areas of the site to which the public may have access.

### Security Fence and Signs

~~41.4 A security fence is to be erected around the substation. Warning signs are to be placed on this fence and a sign identifying the site as being owned by Transpower New Zealand Limited is to be erected at the Bedford Road site entrance. Signs shall be attached to transmission line support structures with a warning not to climb the structure. All signage details shall be submitted for approval to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.4~~

## Hazardous Substances

~~19. 41.6~~The substation shall be operated in accordance with Transpower New Zealand Limited TP:GS.54.01 for Oil Spill Management. In addition, the requirements of the Hazardous Substances and New Organisms Act 1996 and Regulations shall apply to any classified hazardous stored or used on site.

Oil containment kits shall be stored on site for containment and clean up of oil spills from switchyard equipment in accordance with Transpower's 'Environmental management of existing assets (TP. SS 05.10) such that if any spill occurs, they are contained before discharging into, or contaminating any, nearby drains and waterways.

### Hazardous Substances

~~11.7 (a) Subject to (b) below, Prior to construction, and in accordance with TP:GS.54.01 for Oil Spill Management, a Transpower shall comply with the Transformer Bund Design Plan and an Oil Spill Management and Contingency Plan submitted August 2004 as part of the original Outline Plan process.~~

(b) For the management of hazardous substances not already addressed by the original Outline Plan of Works, where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, a new Transformer Bund Design Plan and Oil Spill Management and Contingency Plan shall be prepared and submitted to Council. shall be submitted for approval

to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.1. The Transformer Bund Design Plan shall include, but not be limited to, the following:

- a. Selection of spill contaminant volumes based on the quantity of oil in the transformers
- b. Methods of containment
- c. Methods of separation
- d. Methods of stormwater and oil disposal

## **Roading**

12.1 (a) Subject to (b) below, vehicle entry, access and on-site parking areas shall be developed and maintained in general accordance with the Design Plans submitted August 2004 as part of the original Outline Plan process.

(b) For the management of the vehicle entrance, access and on-site parking not already addressed by the original Outline Plan of Works, where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, construction drawings for the entrance, access road and parking area shall be submitted to Council prior to the commencement of works. Prior to construction works at the substation site, all final construction drawings of the access and parking area (including drainage details), and identifying the location of any structures within the Bedford Road reserve, shall be prepared and submitted for approval to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.1

12.2 Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, Prior to the construction activities a Traffic Management Plan relating to construction works and the use of Bedford Road, Te Puroa Road and Waipa Heights Road shall be prepared and submitted for approved by the Environmental Services Group Manager of Waikato District to Council prior to the commencement of works, in accordance with Condition 2.1. The Traffic Management Plan shall include, where relevant, the following matters:

- a) Measures to advise users of Waipa Heights Road, Te Puroa Road and Bedford Road when heavy vehicle movements will occur along the road for construction purposes;
- b) Notification to WDC Roding Staff of the commencement and completion dates of construction works;
- c) The traffic safety measures to be put in place along the route to minimise the traffic safety risks and time delays for other motorists.
- d) The routing of construction traffic to the substation site; and
- e) In consultation with Waikato District Council, Transpower New Zealand Limited shall undertake inspections of Bedford Road before and after super heavy loads are delivered to the substation. If any damage is identified in the inspection after super heavy loads have been delivered to the substation, Transpower New Zealand Limited shall pay for the repair of road infrastructure.

12.3 Prior to construction work commencing, Transpower New Zealand Limited will construct an entranceway at the junction of the designation access corridor and Bedford Road to meet the standard set out in Waikato District Council plan No. TSG-E1. All final construction drawings of the entranceway shall be prepared and submitted for approval to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.1

## **Engineering**

~~13.1~~ 13.1 Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, ~~Prior to the commencement of construction works~~ an Earthworks and Construction Management Plan will be prepared and submitted ~~for approval of the Environmental Services Group Manager of Waikato District to Council~~ prior to the commencement of works. The plan shall detail, where relevant, the following:

- a) The proposed earthworks methodology. In particular the stripping of vegetation, overburden and soil shall be kept to a minimum and cleared areas will be limited to only those areas where works is about to commence.
- b) Details of earthworks and silt control measures; and
- c) Dust and noise control methodologies.

~~20.13.2~~ 13.2 No construction works are to take place (except landscape planting and stock fencing), or structures placed, within the western escarpment adjacent to the Waipa River or the northern escarpment where the remnant Kahikatea stand is located.

~~13.3~~ 13.3 ~~Prior to the commencement of construction works, a Design Plan for Tower 5 shall be prepared in accordance with the recommendations of the report titled 'Transpower Hamilton New Point of Supply - Site 5 - Geotechnical Assessment' by the Merilee and dated June 2003, and shall be submitted for approval to the Environmental Services Group Manager of Waikato District Council in accordance with Condition 2.1.~~

#### **Archaeological**

~~21.14.4~~ 14.4 If any urupa, traditional sites, taonga (significant artefacts), koiwi (human remains), or other archaeological sites are exposed during site works then the following procedures shall apply:

- a) Immediately it becomes apparent that an urupa, traditional site, taonga, koiwi or other archaeological site has been exposed, all site works in the immediate vicinity shall cease.
- b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are not further disturbed.
- c) The site supervisor shall notify tangata whenua, including Turangawaewae Trust Board and Waikato Raupatu Lands Trust, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand Pouhere Taonga, ~~the Department of Conservation, the Waikato District Council, and, in the case of human remains, the NZ Police, that an archaeological or traditional site has been exposed and so that appropriate action can be taken. This includes such persons being given reasonable time as determined by~~ Heritage New Zealand Pouhere Taonga ~~the Council~~ to record and recover archaeological features discovered before work may recommence on the site.

#### **Recovery of Costs**

~~22.14.4~~ 15.4 Pursuant to section 36 of the Resource Management Act 1991, the actual and reasonable costs incurred by ~~Waikato District Council~~ in monitoring conditions of this ~~recommendation~~ designation shall be paid by Transpower New Zealand Ltd.

K6: Te Kowhai Deviation A 220kV high voltage transmission line		
Designation unique identifier	TPR-6	
Designation purpose	Te Kowhai A 220kV High Voltage Transmission Line	
Site identifier	Legal description	<p><del>Allot 58B2B2 Waipa Parish ML 17224, Lot 11 DPS 62333, Allot 48A Waipa Parish, Allot 48B Waipa Parish, Part Waipa Heights Road, Part of Bedford Road, Lot 1 DP 12498 and Lot 2 DP 12498</del></p> <p><u>Allot 48A Waipa Parish, Allot 48B Waipa Parish, Section 1 SO Plan 383836, Lot 1 DP 12498, Lot 1, 3 DP 343406, Lot 11-12 DPS 62333, Lot 2 DP 343406, Lot 3-4 DP 338018, Part Bedford Road</u></p>
	Physical address	Waipa Heights Road
	Site name	Te Kowhai Deviation A 220kV high voltage transmission line
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	Yes	
Additional information	N/A	

**Duplicate Conditions TPR-5 Transpower New Zealand( Ltd) Te Kowhai Substation**

K7: Ohinewai Switching Station		
Designation unique identifier	TPR-7	
Designation purpose	Ohinewai Electricity Switching Station	
Site identifier	Legal description	Lots 3 and 4 DP 37383, Lot 2 DPS 89160 <u>Lot 3-4 DP 459363</u>
	Physical address	532-480 Storey Road, Waiterimu
	Site name	Ohinewai Switching Station
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	Yes	
Additional information	N/A	

## Conditions

### Description of works

1. 4.4 The works to give effect to the designation of the switching station, transmission lines and ancillary facilities shall be generally in accordance with the plans and information submitted by Transpower New Zealand Limited in support of the Notice Requirement for and Alteration to Designated Designation lodged on the 25 March 2013 (and including the following plans of the proposed works, and subject to any amendments required by the conditions of this recommendation that follow:

(b) Lots 1, 2, 3, 4 and 6 being a subdivision of Lots 1, 3 and 4 DP 37383, Lot 1 DPS 13770 and Lot 2 DPS 89160 prepared by CKL, ref P3148, Page 5 of 6 dated 20/11/2012.

### Outline Plan

2.1 For any new construction works that have not been addressed in an earlier approved Outline Plan of Works but remain within the scope of the designation, Transpower shall submit an Outline Plan of Works as required by s176A of the Resource Management Act 1991 to Council before work commences.

Transpower New Zealand Limited shall submit an outline plan or plans to the Waikato District Council pursuant to section 176A of the Resource Management Act 1991 prior to the commencement of construction works on the switching station site. In addition to any other matters required to be included in the Outline Plan or plans in accordance with section 176A(3)(f), the plan(s) shall incorporate the following documents as identified in subsequent condition:

- a) Landscape Mitigation Plan;
- b) Lighting Management Plan;
- c) Earthworks and Construction Management Plan;
- d) Stormwater Management Plan

- e) ~~Traffic Management Plan; and~~
- f) ~~Road Works Plan~~

### **Limits to the Scope of Designation**

- ~~2.3.4~~ No works shall occur within 50 metres of the designation boundary with the exception of the following:
- a) The existing transmission lines;
  - b) The access road described in the NOR;
  - c) Landscape planting; and
  - d) Upgrading in accordance with the designated purpose.

### **Height**

- ~~3.4.4~~ The maximum height of the new transmission towers shall be as identified in the ~~NOR~~ Notice of Requirement (T305A = 49 metres; T634A = 28 metres; T633A = 52 metres), allowing for minor adjustments to height as an outcome of detail engineering design (with 5% tolerance).
- ~~4.4.2~~ The maximum height of buildings and structures shall be as identified in the NOR, allowing for minor adjustments to height as an outcome of detailed engineering design.

### **Landscape Mitigation**

- ~~5.1~~ Transpower shall satisfy all requirements in the Landscape and Visual Mitigation Plan prepared by Boffa Miskell Ltd, dated July 2007, submitted as part of the original Outline Plan process, including the following on-going conditions: A landscape Mitigation Plan shall be prepared for the switching station site and submitted to the Waikato District Council in accordance with Condition 2.1.
- a. Implementation of strategies within the approved maintenance schedule for fertilisation, irrigation, weed and pest control;
  - b. Maintenance of stock proof fencing (e.g. 7 wire post and batten fence) of all landscape areas to prevent undergrazing.
- ~~5.2~~ The Landscape Mitigation Plan shall include all mitigation measures outlined in the NOR documentation and as confirmed at the Hearing on the 13 December 2006, for the avoidance of doubt this includes extended planting of the row of trees on the switching platform to the edge of the platform, and includes extended planting of the row of trees west of the platform up towards the edge of the access road. The Landscape Mitigation Plan shall include, but not be limited to, the following:
- ~~a) The identification of the botanical name, common name, size at time of planting, mature height, quantities and location of all mitigation planting;~~
  - ~~b) An implementation strategy identifying when the mitigation works will be undertaken, including areas that can be planted prior to construction where they will not be affected by construction activities;~~
  - ~~c) An establishment and maintenance schedule to include strategies for fertilisation, irrigation, weed and pest control; and~~
  - ~~d) All landscape areas are to be appropriately stock fenced (e.g. 7 wire post and batten fence to prevent undergrazing).~~
- ~~5.3~~ Transpower New Zealand Ltd shall report annually for the first two years and then a final report three years later, to the Waikato District Council, on the landscaping and planting works undertaken. The report shall describe what landscape mitigation work has occurred, any problems

~~experienced, any remedial action as a consequence, the nature of ongoing work in progress, and the aims and objectives for the ensuing reporting period.~~

~~5.5.4~~ All landscape mitigation planting shall be maintained in a satisfactory manner for the duration of the designation. Once a continuous row and/or canopy has been established, this maintenance shall include replanting of any gaps created by death or damage of trees, in order to allow a continuous row and/or canopy to re-establish.

~~6.5.5~~ The Landscape Mitigation Plan shall be reviewed and amended as necessary by Transpower New Zealand Ltd and submitted to the ~~Waikato District Council~~, every 5 years (or sooner if considered by Transpower to be desirable) from the date the original Plan is submitted under Condition 2.1. ~~Transpower New Zealand Ltd shall adhere to and undertake and maintain all works required by the Landscape Mitigation Plan.~~

## Lighting

~~7.6.1~~ The illuminance of the site lighting installations should not exceed: 5 lux (lumens per square metre) spill (horizontal or vertical) of light at any window of any existing dwellings located on adjacent properties.

~~6.2~~ Prior to commencement of construction works, a Lighting Management Plan submitted to ~~Waikato District Council~~ in accordance with Condition 2.1. include, but not be limited to, the following:

~~a) The design details for the switching station lighting and any other lighting on the site.~~

~~(a) Subject to (b) below, the switching station and site lighting shall be in general accordance with the Design Details prepared by Beca, dated May 2007, submitted to Council as part of the original Outline Plan process.~~

~~(b) For any new lighting that has not been addressed in the earlier approved Outline Plan process but remains within the scope of the designation, Transpower shall submit an Outline Plan of Works as required by s176A of the Resource Management Act to Council before work commences.~~

Advice Note: 6.2.1 A mechanism/system to enable full illumination of the switchyard platform to occur gradually/progressively over a period of between 2-5 minutes is recommended to prevent the potential for startling stock when emergency lighting is turned on.

## Noise

~~8.7.1~~ Noise from construction activities shall not exceed the limits recommended in, and shall be measured and assessed in accordance with, 'NZS6803:1999 Acoustics — Construction Noise'.

~~Noise from any construction, maintenance, or demolition activity must be measured, assessed and managed in accordance with the requirements of 'NZS 6803:1999 Acoustics Construction Noise'.~~

~~9.7.2~~ The noise level from activities within the switching station site shall not exceed the following limits when measured on the site boundary:

~~a) 50dBA (L40 LAeq) Monday to Friday 7:00am to 7:00pm~~

~~b) 50dBA (L40 LAeq) Saturday 7:00am to 6:00pm~~

~~c) 40dBA (L40 LAeq) At all other times including Public Holidays~~

~~10.7.3~~ Noise levels shall be measured in accordance with the requirements of 'NZS6801:19942008 Measurement of Environmental sound' and assessed in accordance with the requirements of 'NZS6802:19942008 Acoustics – Environmental Sound.'

## Earthworks and Engineering

- 8.1 Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, Prior to the commencement of earthworks and construction, an Earthworks and Construction Management Plan shall be prepared and submitted to Waikato District Council prior to the commencement of works. in accordance with Condition 2.4. The plan It shall include, where relevant, but not be limited to, the following:
- a) ~~The proposed earthworks and silt control methodology in accordance with the proposed 'Erosion and Sediment Control Plan' included in the NOR and in accordance with conditions imposed on the Land Disturbance Consent (L 1 5098) issued by Waikato Regional Council. In particular the, stripping of vegetation, overburden and subsoil shall be kept to a minimum and cleared areas will be limited to only those areas where work is about to commence;~~
  - b) Detail the material (imported material shall be clean fill only), source, use, disposal and treatment.
  - c) Proposed depth of fill, volume, cross sections and final contours;
  - d) Detail silt control and stormwater management proposed during construction; and
  - e) Detail dust and noise control methodologies.
- 8.2 A geotechnical completion report shall be submitted to ~~Waikato District~~ Council for the earthworks carried out, unless deemed unnecessary by the council due to the scale and nature of the work. This report shall include, where relevant, but not be limited to, the following details:
- a) A final contour plan;
  - b) A fill excavated or placed on the site shall be clearly indicate on a site plan. All fill shall either be certified as being suitable for development or otherwise identified as unsuitable by a chartered professional engineer;
  - c) The depth of the fill and/or cut;
  - d) Include cross sections of the original slope and the slope of the fill material; and
  - e) Provide evidence that a minimum of 1.5 factor of safety is obtained on all cut and fill slopes.

### **Stormwater Management**

- 9.1 ~~(a) Subject to (b) below, Aa Stormwater mManagement Plan for ongoing management of stormwater at the site shall be in general accordance with the Stormwater Management Plan prepared by Beca, dated August 2007, submitted as part of the original Included in the plan are ongoing requirements to ensure rRunoff shall be maintained to greenfield rates to mitigate the impact of peak events on downstream infrastructure.~~
- (b) For stormwater management not already addressed by the original Outline Plan of Works, where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, a Stormwater Management Plan after construction is complete shall be prepared by a suitably qualified person and submitted to Waikato District Council prior to the commencement of works. in accordance with Condition 2.4. The-The plan shall include, where relevant, but not be limited to, the following:
- a) A site plan showing all existing flow paths and proposed drainage works;
  - b) Drainage works to allow land drainage from the switchyard and also from the proposed road, to be collected and discharged appropriately; and
  - c) Design plans for the works need to include:
    - i) Diameters, length and gradients of any pipes, flumes and culverts;

- ii) Collection and disposal point details including erosion prevention at any disposal outlets:
- iii) Calculations to support the sizes selected. Calculations should be on the total catchment area, which may include areas outside the property boundaries of the designated site. And consideration may need to be given to temporary drainage provisions during construction that enlarge some culvert catchment areas.

9.2 Where required as part of any new Outline Plan process, aAs-built plans showing the land drainage works and any secondary flowpaths shall be submitted to ~~Waikato District Council~~ prior the to commencement of works.

### Archaeological

~~11.40.4~~ If any urupa, traditional site, taonga (significant artefacts), koiwi (human remains), or other archaeological sites are exposed during site works then the following procedures shall apply:

- a) Immediately it becomes apparent that an urupa, traditional site, taonga, koiwi or other archaeological site has been exposed, all site works in the immediate vicinity shall cease;
- b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are not further disturbed; and
- c) The site supervisor shall notify tangata whenua, including Nga Muka Development Trust, ~~the New Zealand Historic Places Trust, New Zealand Pouhere Taonga,~~ the Department of Conservation, the ~~Waikato District Council,~~ and, in the case of human remains, the NZ Police, that an archaeological or traditional site has been exposed so that appropriate action can be taken. This includes such persons being given reasonable time as determined by ~~the Council to~~ New Zealand Pouhere Taonga record and recover archaeological features discovered before work may recommence on the site.

### Roading & Traffic

11.1 Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, a Traffic Management Plan relating to works to be carried out in the road reserve (localised intersection widening) and the use of Storey Road shall be prepared and submitted to ~~Waikato District Council~~ prior to the commencement of works, in accordance with Condition 2.1. The Traffic Management Plan shall include, where relevant, but not be limited to, the following matters:

- a) Notification to ~~WDC Reading Staff Council~~ Council of the commencement and completion dates of construction works;
- b) The traffic safety measures to be put in place along the route to minimise the traffic safety risks and time delays for other motorists;
- c) Evidence of consultation undertaken with ~~WDC Reading Staff Council~~ Council with regard to any overweight or oversize loads; and
- d) A Traffic Route Plan indicating the route to be used for accessing the site (from the south) as indicated on the application.

~~11.2 A Road Works Plan relating to works to be carried out for the proposed site entrance, the wheel wash, access road, localised intersection widening on Storey Road, improvements to the site access intersection, shall be prepared and submitted to the Waikato District Council in accordance with Condition 2.1. The Road Works Plan shall include and require the formation, prior to construction works on site, of the following matters and include engineering drawings of items c), d), e) and f):~~

- ~~a) The proposed entrance to the site at the location as indicated on the application plan and constructed in accordance with Waikato District Council Plan No.1 TSG- EI (Heavy Commercial);~~

- ~~b) The wheel wash in the outgoing lane of the access road 30 metres prior to the entrance with Storey Rd in accordance with the Erosion with Sediment Control Plan submitted in the application.~~
- ~~c) Localised intersection widening on Storey Road at the intersection of the site access road in accordance with Figure 5 of Waikato District Council's Code of Practice;~~
- ~~d) A high strength surface for turning vehicles on Storey Road at the intersection of the site access road, or maintenance during the construction period and a reseal at the completion of the works;~~
- ~~e) A sealed 6 metre wide access road generally in accordance with the plans submitted in the application; and~~
- ~~f) Six (6) carparks and sufficient turning area adjacent to the control building in general accordance with Figure 4 of Waikato District Council's Code of Practice and that the surface shall be sealed with an all weather surfacing.~~

#### **Waikato District Council Legal Road (unformed)**

- ~~12. 42.1~~ Any activities or the designation from Transpower will not prevent ~~Waikato District Council~~ from constructing and maintaining a public road over the alignment of the existing paper road.
- ~~13. 42.2~~ If, in the event that any dust that might arise from the ~~Waikato District Council~~ road is of concern to Transpower or its operations, then that Transpower will seal the section of road at its cost.
- ~~14. 42.3~~ Should Transpower wish to install any services across or under the existing paper road corridor, it has obtained written approval from ~~Waikato District Council~~ (approval which will not be unreasonably withheld) to cross the road, and that it agree to the location and depth of such services with Council prior to their construction.
- ~~15. 42.4~~ Should ~~Waikato District Council~~ choose to construct a road at some stage in the future, and any services installed within the road corridor need to be relocated or shifted as a consequence of the road construction, then the cost of any relocation of services thereof shall be 100% borne by Transpower.

#### **Health & Safety-EMR (Electromagnetic Radiation)**

- ~~16. 43.4~~ Radio frequency emissions from the telecommunications installation shall comply with 'NZS2772: Part I: 1999 Radiofrequency fields – Maximum exposure levels – 3 kHz to 300 GHz' (Radio Frequency Fields).

#### **EMF (Electromagnetic Fields)**

- ~~17. 43.2~~ Electric and magnetic fields shall comply with guidelines for public exposure to electric and magnetic fields as published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

The Electromagnetic Fields (EMF) exposure at or beyond the secure boundary of the substation site shall not exceed the International Commission on Non-Ionising Radiation Protection Guidelines, for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 99(6):818-836; 2010) (ICNIRP guidelines) to public reference levels of 5 kv/m for electric fields and 200 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).

- ~~13.3~~ A security fence is to be erected around the switching station platform to a maximum height of 3.6 metres.

#### **Signs**

- ~~18. 43.4~~ Any signs that might be placed at the site entrance shall comply with the signage provisions of the ~~Operative and Proposed~~ Waikato District Plans.

## **Hazardous Substances**

~~19.44.4~~ On site oil containment kits shall be stored on site for containment and cleanup of oil spills from switchyard equipment in accordance with Transpower's Environmental management of existing assets Oil Spill Management Standard (TP.GS 54.04 TP.SS 05.10) such that if any spill occurs that they be contained before discharging into or contaminating any nearby drains and waterways.

## **Community Liaison**

~~15.1~~ Transpower New Zealand Ltd shall undertake, for the duration of construction at the site, ongoing consultation and liaison with the submitters (A Holden & L Scott; CR & SA Baker; DG Waugh; Waiterimu Golf Club; Nga Muka Development Trust), which shall include but not be limited to:

- ~~a) Contact details of the site manager and Transpower's contracts manager;~~
- ~~b) Quarterly written advice that provides reasonable information regarding the construction activities taking place; and~~
- ~~c) The offer of a formal post construction site visit opportunity. Any such site visit shall exclude entry to the fenced switch yard area.~~

## **Recovery of Costs**

~~20.46.4~~ Pursuant to section 36 of the Resource Management Act 1991, the actual and reasonable costs incurred by ~~Waikato District~~ Council in monitoring conditions of this designation shall be paid by Transpower New Zealand Ltd.

K8-152-Brownhill Road to Whakamaru North <u>400kV Capable</u> Overhead Transmission Line		
Designation unique identifier	TPR-8	
Designation purpose	Brownhill Road to Whakamaru North Overhead Transmission Line	
Site identifier	Legal description	
	Physical address	<u>Brownhill Road to Whakamaru North Overhead Transmission Line – Refer planning maps</u>
	Site name	<u>400kV Capable</u> - Brownhill Road to Whakamaru North Overhead Transmission Line
Lapse date	N/A (designation has been given effect)	
Designation hierarchy under section 177 of the Resource Management Act	Primary	
Conditions	Yes	
Additional information	N/A	

#### Legal Description

— Allot 164 Whangamarino PARISH, Allot 267 Taupiri PARISH, Allot 277 Taupiri PARISH, Allot 286 Taupiri PARISH, Allot 287 Taupiri PARISH, Allot 291 Taupiri PARISH, Allot 300 Taupiri PARISH, Allot 301 Taupiri PARISH, Allot 31 Maramarua PARISH, Allot 377 Whangamarino PARISH, Allot 573 Taupiri PARISH, Allot 663 Whangamarino PARISH Allot 694 Taupiri PARISH, Allot 695 Taupiri PARISH, Allot 748 Taupiri PARISH, Crown Land Deposited Plan South Auckland 51231, Crown Land Survey Office Plan 34936 Crown Land Survey Office Plan 34936, Lot 1 DP 11238, Lot 1 DP 18570, Lot 1 DP 24572, Lot 1 DP 29065, Lot 1 DP 29348, Lot 1 DP 32767, Lot 1 DP 32851, Lot 1 DP 368595, Lot 1 DP 439420, Lot 1 DP 439728, Lot 1 DPS 10847, Lot 1 DPS 1656, Lot 1 DPS 2283, Lot 1 DPS 23254, Lot 1 DPS 3347, Lot 1 DPS 3501, Lot 1 DPS 44792, Lot 1 DPS 51231, Lot 1 DPS 56868, Lot 1 DPS 6244, Lot 1 DPS 63912, Lot 1 DPS 67106, Lot 1 DPS 73791, Lot 1 DPS 78377, Lot 1 DPS 83406, Lot 1 DPS 83570, Lot 1 DPS 85600, Lot 1 DPS 89880, Lot 1 DPS 90141, Lot 1 DPS 91554, Lot 1 DPS 9993, Lot 2 DP 18570, Lot 2 DP 22291, Lot 2 DP 27671, Lot 2 DP 29348, Lot 2 DP 29664, Lot 2 DP 322420, Lot 2 DP 32767, Lot 2 DP 330958, Lot 2 DP 417722, Lot 2 DP 439420, Lot 2 DP 439728, Lot 2 DP 442233, Lot 2 DP 451941, Lot 2 DP 457692, Lot 2 DP 462151, Lot 2 DPS 1097, Lot 2 DPS 17834, Lot 2 DPS 19705, Lot 2 DPS 2283, Lot 2 DPS 6630, Lot 2 DPS 67106, Lot 2 DPS 724, Lot 2 DPS 73791, Lot 2 DPS 78377, Lot 2 DPS 81308, Lot 2 DPS 89880, Lot 3 DP 22291, Lot 3 DP 32767, Lot 3 DP 363753, Lot 3 DP 36580, Lot 3 DP 369411, Lot 3 DP 378206, Lot 3 DP 433501, Lot 3 DPS 1453, Lot 3 DPS 68851, Lot 3 DPS 74265, Lot 3 DPS 81308, Lot 4 DP 32767, Lot 4 DP 332466, Lot 4 DP 369411, Lot 4 DPS 23254, Lot 4 DPS 81308, Lot 4 DPS 86339, Lot 4 DPS 89880, Lot 7 DP 33199, Pt Allot 162 Whangamarino PARISH, Pt Allot 163 Whangamarino PARISH, Pt Allot 270 Taupiri PARISH, Pt Allot 272

Taupiri PARISH, Pt Allot 50 Maramarua PARISH, Pt Allot 57 Maramarua PARISH, Pt Allot 6 Maramarua PARISH, Pt Land on DP 3101, Pt Land on DP 7851, Pt Lot 1 DP 21817, Pt Lot 1 DP 22291, Pt Lot 1 DP 26041, Pt Lot 1 DP 32840, Pt Lot 3 DP 16646, Pt Lot 3 DP 23291, Pt Lot 8 DP 15482, Pt Sec 12 Taniwha SETTLEMENT, Pt Sec 1s Tangao SETTLEMENT, Pt Sec 5 Mangakura SETTLEMENT, Pt Tauhei 7A6B2, RD SO 422579, Sec 1 SO 437841, Sec 13 Mangakura SETTLEMENT, Sec 16 Blk XIV Paeroa SD, Sec 17 Blk V Piako SD, Sec 2 Taniwha SETTLEMENT, Sec 3 Taniwha SETTLEMENT, Sec 4 Mangakura SETTLEMENT, Sec 4 Taniwha SETTLEMENT, Sec 5 Taniwha SETTLEMENT, Tauhei 7A5B2C1, Tauhei 7A5B2C3, Tauhei 7A6A2, Part Taniwha Road, Part Mangapiko Valley Road, Part Proctor Road, Part Coalfields Road, Part Waeronga Road, Part Riddell Road, Part Matahuru Road, Part Tainui Road, Part Symes Road, Part Tahuna Road, Part Mangatea Road, Part State Highway 2, Part Manuel Road, Part Flaxmill Road, Part Taniwha Road

### Conditions K8 (Waikato Section)

**General** Documents, tower heights and locations, ~~activities under the line~~, cultural/spiritual, archaeology, social

1. ~~Subject to the conditions below, the initial works to give effect to the designation shall be generally in accordance with Maps 52–68 in Appendix V.~~

For any new construction works that have not been addressed in an earlier approved Outline Plan of Works but remain within the scope of the designation, Transpower shall submit an Outline Plan of Works as required by s176A of the Resource Management Act 1991 to Council before work commences.

2. Tower heights and locations, except in relation to towers 88 and 89, shall be generally in accordance with the plans and profiles, except that:
  - a. Tower height can exceed that shown on the plans and profiles by up to three metres;
  - b. Where tower locations are moved in accordance with (d) and (e) below, tower heights can exceed those in the plans and profiles by up to five metres;
  - c. No tower shall exceed 70 metres in height;
  - d. Tower sites may be moved up to five metres laterally;
  - e. Tower sites may be moved up to 40 metres along the alignment.
3. Tower heights and locations for towers 88 and 89 shall be in accordance with Map 53 in Appendix V Set 10, of the Decision. Towers 88 and 89 shall not be relocated, except with the prior written consent of the affected landowners and holders of the affected mineral rights. The heights of towers 88 and 89 can exceed that shown on the plans and profiles by up to three metres.
4. ~~Transpower shall include additional engineering measures in its design and construction of the foundation of towers 88 and 89 to provide additional mitigation to allow for possible ground movement caused by future mining activities carried out in accordance with condition 5 below. Such measures may include increased foundation depths and possible installation of tie beams to allow for differential settlement. Provided towers 88 and 89 are constructed to provide additional mitigation for ground movement caused by future mining activities, Transpower is not required to provide mitigation following construction and commissioning of the towers to address unstable batter slopes potentially caused by future mining activities.~~
1. 5. The ~~construction~~, operation and maintenance of towers 88 and 89 and the overhead 400kV ~~capable~~ transmission line, shall be undertaken in such a manner as to not unreasonably hinder or preclude the use and development of land legally described as Part Allotment 57 Parish of

Maramarua and Lot 3 DPS 1453 (unique identifiers SA5A/133 and SA58C/221) (Maxwell Block) for open pit mining operations that incorporate the following agreed restrictions:

- a) The top of any open pit batter slope does not extend inside a circle with a radius of 45 metres from the centre peg of tower 88 and 52 metres from the centre peg of tower 89;
  - b) An overall maximum batter slope of no greater than 1.6 metre horizontal to 1.0 metre vertical;
  - c) A minimum of 12.7 metres clearance of ground level from the overhead 400kV capable transmission line at maximum operating temperature;
  - d) A minimum of six metres clearance of any plant or equipment from the overhead 400kV capable transmission line at maximum operating temperature; and
  - e) No buildings shall be constructed within the designated corridor for the overhead 400kV capable transmission line.
6. If any urupā, traditional sites, taonga (significant artefacts) or kōiwi (human remains) are exposed during site works, then the following procedures shall apply:
- a) Works in the immediate vicinity of the site that has been exposed shall cease;
  - b) The site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;
  - c) The site supervisor shall notify representatives of relevant tāngata whenua, Heritage New Zealand Pouhere Taonga ~~the New Zealand Historic Places Trust, Waikato District Council~~ and, in the case of human remains, the New Zealand Police; and
  - d) The notification in c) above shall allow such persons being given a reasonable time to record and resolve archaeological features discovered before work may recommence.
- ~~7. Before any works associated with the Upper North Island Grid Upgrade Project are carried out in the vicinity of site S12/253, Transpower shall undertake the following:~~
- ~~a) All proposed access routes for tower 94 shall be archaeologically surveyed by the suitably qualified and experience archaeologist (project archaeologist) prior to the Site Works Plan (SWP) required by condition 41 being finalised. The Site Works Plan shall insofar as it relates to proposed access routes be altered, where practicable, to accommodate any archaeological findings.~~
- ~~8. Before any works associated with the Upper North Island Grid Upgrade Project are carried out near Site S13/30, Transpower shall undertake the following:~~
- ~~a) The locations for towers 140A, 140B and 141, as well any rerouting of the race route, shall (subject to obtaining all necessary statutory approvals) be archaeologically investigated prior to site works commencing.~~
  - ~~b) Any vegetation shall be removed in a manner which does not affect Site S13/30.~~
  - ~~c) The Site Works Plan required by conditions 41–43 for tower 141 states that:~~
    - ~~i) Contractors be aware of the possibility that archaeological evidence may be present.~~
    - ~~ii) If the contractors have any doubts as to the nature of materials found in excavations they should stop work to enable the project archaeologist to assess the materials.~~
- ~~9. The earthworks for tower 161 shall be monitored by the project archaeologist and any evidence recorded in accordance with standard archaeological practice.~~
- ~~10. Before the Site Works Plans in relation to towers 173–175 are finalised, the project archaeologist shall undertake an archaeological survey of the tower sites and the proposed access routes to those tower sites.~~

Advice Note: Conditions 7-10 are subject to any conditions of any archaeological authority granted under the Historic Places Act 1993.

11. ~~Transpower shall prepare a counselling/stress relief plan, after consultation with the territorial authority. The plan shall include:
  - a) An offer of counselling to those persons directly affected by the designation crossing their property to manage undue stress related to implementing the Upper North Island Grid Upgrade Project;
  - b) An 0800 number for the service;
  - c) No requirement for contact with Transpower personnel to access the service;
  - d) Such offer remaining open for acceptance for the period ending six months after confirmation of the designation; and
  - e) Such offer extending to a maximum of four counselling sessions, which may occur beyond the period referred to in (d) above, but which must be completed within 12 months of confirmation of the designation.~~
12. ~~The implementation of the counselling/stress relief plan, and any counselling of directly affected persons, shall be at Transpower's cost.~~
13. ~~Transpower shall not be in breach of the condition 40 if the offer of counselling is not taken up by any directly affected persons.~~

#### **Electric and Magnetic Fields EMF (Electromagnetic Fields)**

- ~~2. 14. The works shall be designed and constructed to limit the EMF exposure to the International Commission on Non-Ionising Radiation Protection Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)(Health Physics, 1998, 74(4): 494-522) (ICNIRP) Guidelines; public reference levels of 5kV/m for electric fields and 100 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (i.e., when there are no faults in the transmission system).~~

The Electromagnetic Fields (EMF) exposure at or beyond the secure boundary of the substation site shall not exceed the International Commission on Non-Ionising Radiation Protection Guidelines, for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 99(6):818-836; 2010) (ICNIRP guidelines) to public reference levels of 5 kv/m for electric fields and 200 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).

- ~~3.15. In order to reduce long-term public exposure to EMFs no habitable building shall be constructed within the designated corridor for the 400kV capable transmission line.~~

#### **Earth potential rise / induced currents**

- ~~4. 16. In designing and constructing the line, Transpower shall give consideration to third party conductive structures and services to ensure compliance with regulations 58, 60, 69 and 87 of the Electricity Regulations 1997 as in force at the date of confirmation of the designation.~~

Any new works or equipment shall be designed and constructed to comply with the Electricity Safety Regulations 2010.

- ~~5. 17. The Any new works or equipment shall be designed and constructed so as not to cause existing assets of other utilities to be noncompliant with AS/NZS 4853:20002012 – Electrical Hazard on Metallic Pipelines.”~~

~~18. Prior to commissioning, Transpower shall have an appropriately qualified person assess all conductive structures in the vicinity of the transmission line. Any hazard shall undergo a risk assessment in accordance with the Electricity Engineers' Association Guide to Risk-Based Earthing System Design. Transpower will carry out mitigation measures to address significant risks relating to earth potential rise and induction effects associated with the line.~~

### **Radio frequency interference**

~~6. 49. Any new All-works or equipment shall be designed to comply with NZS 6869:2004 Limits & Measurement Methods of Electromagnetic Noise from High-Voltage ac. Power Systems, 0.15 to 1000 MHz.~~

### **Operational Noise**

~~7. 20. The operation of the transmission line shall not emanate a noise that exceeds a limit of 40 dBA Leq beyond the boundaries of the designation. Measurements shall not be undertaken during heavy rain.~~

~~8. 24. Sound levels shall be measured and assessed in accordance with NZS6801:1991 Measurement of Sound NZS6801:2008 Acoustics – Measurement of Environmental Sound and NZS6802:2008 Acoustics – Environmental noise.~~

~~Landscape mitigation – general, landscape mitigation – private land, landscape mitigation – public land, pre-construction activities,~~

### **Construction Management Plan**

~~22. Within two months of confirmation of the designation, Transpower shall appoint a suitably qualified and experienced landscape architect for the role of certifying that any of the thresholds in conditions 27 and 29 have been reasonably met (the landscape certifier). The person appointed shall be endorsed by the NZ Institute of Landscape Architects in writing as suitable for the role, having been advised of the role and responsibilities.~~

~~23. Any decision made by the landscape certifier in relation to the matters addressed in conditions 27(b) and 29 shall be in writing (including reasons).~~

~~24. Any landowner may ask the landscape certifier to certify that any decision under conditions 27(b) and 29 is reasonable given the thresholds in those conditions. The landscape certifier shall set his or her own procedure for any such certification.~~

~~25. Within two months of confirmation of the designation, Transpower shall write to the owners of:~~

~~a. Properties having an occupied house, existing at the date of the Board's draft decision on the Notices of Requirement, within one kilometre of the centre line of the designation; and~~

~~b. The following property~~

~~317 Kopuku Road~~

~~Which is beyond one kilometre distance from the centre line, but where the likely effects have been assessed as moderate.~~

~~26. The letter shall inform the landowner/s of the properties referred to in condition 25 of their possible entitlement to a landscape mitigation assessment in accordance with condition 29 (including where relevant, ecological planting). This condition shall not apply to any property where an agreement relating to landscape mitigation has already been reached between Transpower and the landowner.~~

~~27. The written offer required by condition 25 shall inform the landowner that he/she may request Transpower to consider landscape mitigation (including where relevant, ecological planting) at~~

~~his/her option prior to, or after, construction of the overhead line, and outline the process established by these conditions (including the role of the landscape certifier).~~

- ~~28. Within two months of commissioning of the line, Transpower shall repeat the offer required by condition 25 to all landowners who have not already indicated preliminary acceptance of Transpower's offer. Transpower shall expressly state that the offer shall remain valid for 12 months following commissioning of the overhead line.~~
- ~~29. In the case of each landowner who has indicated acceptance of the offer of landscape mitigation assessment (including where relevant ecological planting), the following process shall be adhered to:
  - ~~a. An onsite meeting shall be arranged between the landowner and a qualified landscape architect (the landscape architect) and where relevant an ecologist, appointed by Transpower.~~
  - ~~b. The landscape architect shall determine whether mitigation is appropriate in terms of the criteria in Table 1. If the determination is that no mitigation is appropriate, the landscape architect shall advise Transpower with reasons, and Transpower shall advise the landowner.~~
  - ~~c. Subject to (d), if the landscape architect identifies that mitigation is appropriate in terms of the criteria in Table 1, he/she shall prepare a plan (the concept plan) to mitigate the adverse visual effects of the overhead line when viewed from the dwelling and the immediate curtilage of the dwelling. The mitigation techniques shall take into account the factors and criteria in Table 1.~~
  - ~~d. For properties where ecological planting has been identified in Table 2, the concept plan required by c. shall be prepared by the landscape architect, in consultation with the ecologist, taking into account the criteria in Table 2.~~~~
- ~~30. The concept plan shall be prepared in draft, and following review by Transpower, shall be submitted to the landowner for comment.~~
- ~~31. The concept plan shall be reviewed by the landscape architect, in consultation with the ecologist (where relevant), following the receipt of comments, and following such further consideration, investigation and discussion with the landowner and Transpower as the landscape architect considers necessary, taking into account the criteria in Table 1 and the cost and practicality of implementing any specific request. The revised plan (the final plan) will be provided to the landowner as soon as reasonably practicable.~~
- ~~32. On receipt of written acceptance of the final plan, Transpower shall implement it within the first planting season following that acceptance, unless otherwise agreed with the landowner.~~
- ~~33. Transpower shall maintain the planting for 12 months after completion of planting.~~
- ~~34. In the event that a landowner advises Transpower that the landowner wishes to implement the final plan themselves, within 30 days following completion of all work specified in the final plan to the reasonable satisfaction of the landscape architect, Transpower shall pay the landowner the sum of money allocated in the approved concept plan. Where this occurs, condition 30 shall not apply.~~
- ~~35. In the event that a landowner advises Transpower that the landowner wishes to maintain the planting themselves, within 30 days following completion of all works specified in the final plan, Transpower shall pay the landowner the sum of money allocated in the approved concept plan for maintenance. Where this occurs, condition 33 shall not apply.~~
- ~~36. Within 12 months of confirmation of the designation, Transpower shall write to the Waikato District Council (Council), and where relevant NZTA, informing it or them of its proposal to carry out~~

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Table Table 2

~~landscape mitigation along specific sections or locations of roads and State highways in the Council's district, as shown on Maps 32–39 in Appendix V, and seeking the Council's involvement in implementing the mitigation. The offer shall be for the purpose of mitigation of adverse visual effects of the overhead line when viewed from the public roads or other viewpoints shown in the plan.~~

- ~~37. On receiving a positive response from the Council and/or NZTA (as applicable), Transpower shall provide a draft development plan, specifications, and costing prepared by a qualified landscape architect as an offer to the Council and/or NZTA. The offer shall remain open for 12 months following commissioning of the line.~~
- ~~38. Transpower shall review any comments provided by the Council and/or NZTA and shall issue a final plan. The final plan shall be provided as soon as practicable to the Council and/or Transit.~~
- ~~39. On the Council's and/or NZTA's written acceptance of the plan (where relevant) and agreement to implement the mitigation, Transpower shall, within 30 days, pay to the Council and/or NZTA the cost specified in the accepted plan (which shall include an estimate for a year of maintenance).~~
- ~~40. Transpower shall not be in breach of condition 33 in the event the Council and/or NZTA do not undertake the planting as provided in the final plan.~~
- ~~41. Prior to construction commencing, Transpower shall appoint a Landowner Liaison Officer, who will:
  - ~~a) Be responsible for maintaining contact with landowners and occupiers of each property prior to, and during construction; and~~
  - ~~b) Have a contact role with the landowner during the development of the Site Works Plan (SWP) for individual properties.~~~~
- ~~42. Transpower shall make copies of individual SWPs available to the Waikato District Council for information purposes, upon request.~~
- ~~43. Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991. Prior to commencement of any construction activity authorised by the designation-Transpower shall submit a construction management plan to the Council prior to the commencement of works. s Consents Officer for approval. The Council's Consents Officer shall respond within 15 working days. Approval shall not be unreasonably withheld. The construction management plan shall outline, where relevant, Transpower's intended approach to:
  - a) Land stability management and sediment controls;
  - b) Storage and reuse of topsoil;
  - c) Management and disposal of spoil;
  - d) Groundwater and stormwater management, treatment and disposal;
  - e) Silt and dust control, during earthwork stages;
  - f) Traffic/access management;
  - g) Temporary activities and equipment storage in specified areas;
  - h) Security and lighting during construction;
  - i) Contaminated land management procedures;
  - j) Construction noise ~~(as set out in conditions 44-47)~~, dust and vibration;
  - k) Hours of work;
  - l) Existing network utilities' protocols and guidelines.~~

- m) Subject to other specific conditions, cultural protocols and archaeological requirements;
- n) Vegetation clearance, disposal and restoration;
- o) The intended construction programme (including staging if appropriate);
- p) Protocols and procedures for road controlling authorities and rail operators where the line crosses that infrastructure;
- q) Community information and liaison;
- r) Contractor training; and
- s) Generic contents of Site Works Plans (SWPs).

Nothing in the condition allows the Council, or any other party, to require more onerous controls than contained in the designation conditions.

### **Construction and Maintenance Noise**

~~9. 44. All construction and maintenance work shall be designed, managed and conducted to ensure that construction and maintenance noise from the designated area does not exceed the limits in NZS6803:1999 Acoustics – Construction Noise at locations set out in section 6.2 of that standard.~~

Noise from any construction, maintenance, or demolition activity must be measured, assessed and managed in accordance with the requirements of 'NZS 6803:1999 Acoustics Construction Noise'.

~~10. 45. The noise limits required by condition 944 shall not apply to emergency work required to re-establish continuity of supply, urgently required to prevent loss of life or other personal injury or commissioning works, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effects particularly at times when the stricter noise limits apply (eg, at night time).~~

46. Prior to any ~~significant~~ construction work beyond that contemplated by any prior Outline Plan of Works taking place, including any earthworks, a noise management plan ~~applicable to the construction and commissioning stages~~ shall be prepared ~~for the whole of the line~~, with the assistance of a suitably qualified and experienced person. ~~The plan shall set out the management procedures in terms of section 8 and Annex E of NZS6803:1999 and the works shall be undertaken in accordance with that noise management plan.~~

47. The noise management plan required by condition 46 shall be submitted to the Council's ~~Consents Manager~~, at least 20 working days prior to the works commencing.

### **Vibration, ~~Aviation~~, Traffic Management Plan for road crossings and local roads, construction entranceways off public roads**

48. Vibration from all construction activities shall not exceed the limits of, and shall be measured in accordance with, German Standard DIN 4150-3 (1999-02) Structural Vibration – Effects of Vibration on Structures.

~~49. Transpower shall, on a monthly basis during the construction of the line, inform the New Zealand Agricultural Aviation Authority, the Civil Aviation Authority and Ardmore Airport Limited (in relation to the towers within the conical surface only, as set out in the Appendix Map 8, Ardmore Aerodrome Protection Measures, Manukau Operative District Plan, 2002) of the construction activities completed in the previous month, and intended to be undertaken in the following month including:~~

- ~~a) ————Erection of specific towers (with locations and heights); and~~
- ~~b) ————Stringing of conductor and earthwires between specified towers.~~

~~For the avoidance of doubt, the requirement in condition 54 applies to each tower and conductor of each tower, not merely the commencement of tower erection or conductor stringing.~~

50. Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, a Traffic Management Plan relating to construction works shall be prepared and submitted to Council prior to the commencement of works.

~~Transpower shall prepare a series of traffic management plans for road crossings and local roads used by heavy traffic in accordance with Transit New Zealand's Code of Practice for Temporary Traffic Management (COPTTM), after consultation with (as relevant):~~

- ~~a. Waikato District Council (Road Controlling Authority);~~
  - ~~b. New Zealand Transport Agency (NZTA); and~~
  - ~~c. The following key stakeholders:~~
    - ~~i. Emergency Services (including police);~~
    - ~~ii. Bus operators;~~
    - ~~iii. Schools;~~
    - ~~iv. Housing New Zealand Corporation;~~
  - ~~d. Any additional key stakeholders identified by Waikato District Council.~~
51. ~~A TMP shall be submitted to the Council and NZTA (where relevant) at least 20 working days prior to the commencement of construction of the relevant road crossing works or works affecting local roads. The plans may be submitted in stages, with each stage being submitted at least 20 working days prior to the commencement of the work the subject of that stage.~~
52. The TMP Traffic Management Plan prepared by Transpower shall recognise that the paramount purpose of roads is the free passage of the public and its vehicles.
53. The TMPs Traffic Management Plan shall, where relevant, address and provide details of proposed road crossing works and general use of local roads by heavy vehicles and/or mitigation measures relating to:
- a. The broad staging of the works, areas of activity and the nature and extent of traffic management;
  - b. Locations of entranceways;
  - c. Description of existing traffic;
  - d. Proposed traffic management methods, including layout diagrams for temporary traffic management, and proposed speed restrictions;
  - e. In relation to road crossing works, details of the installation of any protection measures including, but not limited to, hurdles for subsequent line construction purposes;
  - f. Details of any necessary temporary road closures, diversions, or deviations which are likely to be required during road crossing activities, including the likely date, time, and duration of such matters (any necessary temporary road closures should be effected during off-peak periods unless this is impracticable or would have adverse impacts on adjacent properties);
  - g. Where diversions or deviations are required, information shall be provided by a suitably qualified and experienced traffic engineer of the traffic volumes and capacities of alternative routes, to ensure that such routes are both convenient and capable of safely accommodating any such diverted or deviated traffic;
  - h. Details of the proposed signage to advise motorists, residents, stakeholders, and other road users of any road closures, diversions and delays, such signage to be sufficiently clear to be

capable of ready understanding by the general public and installed at appropriate locations at least seven days in advance of such road closures, diversions and delays;

i. Details of methods of proposed information dissemination regarding construction activities and associated traffic effects, including but not limited to public notices in newspapers, radio announcements, information packages and direct contact with affected persons. (Such information dissemination, and the chosen method of dissemination is to be proportional to the impact);

j. Details of prior consultation or community liaison undertaken with affected residents, stakeholders, public transport providers, emergency services or representative groups regarding proposed road closures, diversions and delays, and any measures agreed with such groups to address any adverse effects or inconvenience that may arise; and

k. Identification of any measures for the purposes of mitigating adverse traffic effects of construction traffic, including safety matters (such speed restrictions and signage), relating to cyclists, pedestrians, disabled persons, and schoolchildren.

Advice Note: If temporary road closure is required, additional time may be necessary to allow the Road Controlling Authority to complete the consultation and give the public notices required under section 342 and schedule 10 of the Local Government Act 1974.

~~54. Prior to the commencement of construction, Transpower shall undertake a survey of the condition of the roads in the immediate vicinity of construction entranceways off public roads (consisting of a photographic survey).~~

55. Transpower shall repair any damage to entranceways and public roads in the vicinity of those entranceways resulting from impacts of its construction traffic.

## Conditions 152 (Former Franklin Section)

### General

1. ~~Subject to the conditions below, the initial works to give effect to the designation shall be generally in accordance with Maps 44–52 of Appendix V.~~

### Tower Heights and Location

2. Tower heights and locations shall be generally in accordance with the plans and profiles except that:
  - a) tower height can exceed that shown on the plans and profiles by up to three metres;
  - b) where tower locations are moved in accordance with (d) and (e) below, tower heights can exceed those in the plans and profiles by up to five metres;
  - c) no tower shall exceed 70 metres in height;
  - d) tower sites may be moved up to five metres laterally;
  - e) tower sites may be moved up to 40 metres along the alignment.

### Cultural and Spiritual

3. If any urupā, traditional sites, taonga (significant artefacts) or kōiwi (human remains) are exposed during site works, then the following procedures shall apply:
  - a) works in the immediate vicinity of the site that has been exposed shall cease;
  - b) the site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;
  - c) The site supervisor shall notify representatives of relevant tāngata whenua, Heritage New Zealand Pouhere Taonga ~~the New Zealand Historic Places Trust, Waikato District Council~~ and, in the case of human remains, the New Zealand Police; and
  - d) The notification in (c) above shall allow such persons being given a reasonable time to record and resolve archaeological features discovered before work may recommence.

### ~~Archaeological sites: route section 4, towers 33A–45~~

4. ~~The locations of all towers shall be subject to archaeological survey by a suitably qualified and experienced archaeologist (project archaeologist) prior to finalisation of the relevant Site Works Plans required by conditions 36 and 37, other than the proposed locations for towers 33A to 37, 40, 43 and 44.~~

### ~~Archaeological sites: route section 5~~

5. ~~Before any works associated with the Upper North Island Grid Upgrade Project are carried out within designated area of route section 5, any new Transpower shall undertake the following:~~
  - a) ~~The project archaeologist shall monitor the earthworks at tower 56 to determine whether archaeological evidence is present.~~
  - b) ~~All of the proposed access routes, and tower locations for towers 63A–69 shall be archaeologically surveyed prior to the relevant Site Works Plans required by conditions 36 and 37 being finalised. The Site Works Plans, where practicable, shall accommodate any archaeological findings.~~

~~c) Known archaeological site S12/324 shall be marked on all relevant Site Works Plans, and any maintenance plans. The Site Works Plans and any maintenance plans shall state that site S12/324 includes associated trees.~~

#### Advice Note

~~Conditions 4 and 5 would be~~ are subject to any conditions of any archaeological authority granted under the Historic Places Act 1993.

#### Social

~~6. Transpower shall prepare a counselling/stress relief plan, after consultation with the territorial authority. The plan shall include:~~

~~a) an offer of counselling to those persons directly affected by the designation crossing their property to manage undue stress related to implementing the Upper North Island Grid Upgrade Project;~~

~~b) an 0800 number for the service;~~

~~c) no requirement for contact with Transpower personnel to access the service;~~

~~d) such offer remaining open for acceptance for the period ending six months after confirmation of the designation; and~~

~~e) such offer extending to a maximum of four counselling sessions, which may occur beyond the period referred to in (d) above, but which must be completed within 12 months of confirmation of the designation.~~

~~7. The implementation of the counselling/stress relief plan, and any counselling of directly affected persons, shall be at Transpower's cost.~~

~~8. Transpower shall not be in breach of the condition 11 if the offer of counselling is not taken up by any directly affected persons.~~

#### **Electric and Magnetic Fields EMF (Electromagnetic Fields)**

~~1. 9. The new works shall be designed and constructed to limit the EMF exposure to the International Commission on Non-Ionising Radiation Protection Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)(Health Physics, 1998, 74(4): 494-522) (ICNIRP) Guidelines; public reference levels of 5kV/m for electric fields and 100 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (i.e., when there are no faults in the transmission system).~~

The Electromagnetic Fields (EMF) exposure at or beyond the secure boundary of the substation site shall not exceed the International Commission on Non-Ionising Radiation Protection Guidelines, for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 99(6):818-836; 2010) (ICNIRP guidelines) to public reference levels of 5 kv/m for electric fields and 200 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).

~~2. 10. In order to reduce long-term public exposure to EMFs no habitable building shall be constructed within the designated corridor for the 400-kV capable transmission line.~~

#### **Earth potential rise / induced currents**

~~3. 14. In designing and constructing the line, Transpower shall give consideration to third party conductive structures and services to ensure compliance with regulations 58, 60, 69 and 87 of the Electricity Regulations 1997 as in force at the date of confirmation of the designation.~~

Any new works or equipment shall be designed and constructed to comply with the Electricity Safety Regulations 2010.

~~4. 12. The~~ Any new works or equipment shall be designed and constructed to comply with AS/NZS4852:20002012 Electrical Hazards on Metallic Pipelines.

~~13. Prior to commissioning, Transpower shall have an appropriately qualified person assess all conductive structures in the vicinity of the transmission line. Any hazard shall undergo a risk assessment in accordance with the Electricity Engineers' Association Guide to Risk-Based Earthing System Design. Transpower will carry out mitigation measures to address significant risks relating to earth potential rise and induction effects associated with the line~~

#### **Radio frequency interference**

~~5. 14. Any new~~ All-works or equipment shall be designed to comply with NZS6869:2004 Limits & Measurement Methods of Electromagnetic Noise from High-Voltage a.c. Power Systems, 0.15 to 1000 MHz.

#### **Operational noise**

~~6. 15. The operation of the transmission line shall not emanate a noise that exceeds a limit of 40 dBA Leq beyond the boundaries of the designation. Measurements shall not be undertaken during heavy rain.~~

~~7. 16. Sound levels shall be measured and assessed in accordance with NZS6801:1991 Measurement of Sound~~ NZS6801:2008 Acoustics – Measurement of Environmental Sound and NZS6802:2008 Acoustics – Environmental noise

#### **Landscape mitigation**

~~17. Within two months of confirmation of the designation, Transpower shall appoint a suitably qualified and experienced landscape architect for the role of certifying that any of the thresholds in conditions 29 and 31 have been reasonably met (the landscape certifier). The person appointed shall be endorsed by the NZ Institute of Landscape Architects in writing as suitable for the role, having been advised of the role and responsibilities.~~

~~18. Any decision made by the landscape certifier in relation to the matters addressed in condition 24(b) and 26 shall be in writing (including reasons).~~

~~19. Any landowner may ask the landscape certifier to certify that any decision under condition 24(b) and 26 is reasonable given the thresholds in those conditions. The landscape certifier shall set his or her own procedure for any such certification.~~

~~20. Within two months of confirmation of the designation, Transpower shall write to the owners of properties having an occupied house, existing at the date of the Board's draft decision on the Notices of Requirement, within one kilometre of the centre line of the designation.~~

~~21. The letter shall inform the landowner/s of the properties referred to in condition 20 of their possible entitlement to a landscape mitigation assessment in accordance with condition 24 (including where relevant, ecological planting). This condition shall not apply to any property where an agreement relating to landscape mitigation has already been reached between Transpower and the landowner.~~

~~22. The written offer required by condition 20 shall inform the landowner that he/she may request Transpower to consider landscape mitigation (including where relevant, ecological planting) at his/her option prior to, or after, construction of the overhead line, and outline the process established by these conditions (including the role of the landscape certifier).~~

~~23. Within two months of commissioning of the line, Transpower shall repeat the offer required by condition 20 to all landowners who have not already indicated preliminary acceptance of~~

~~Transpower's offer. Transpower shall expressly state that the offer shall remain valid for 12 months following commissioning of the overhead line.~~

- ~~24. In the case of each landowner who has indicated acceptance of the offer of landscape mitigation assessment (including where relevant ecological planting), the following process shall be adhered to:
  - a) An onsite meeting shall be arranged between the landowner and a qualified landscape architect (the landscape architect) and where relevant an ecologist, appointed by Transpower.
  - b) The landscape architect shall determine whether mitigation is appropriate in terms of the criteria in Table 1. If the determination is that no mitigation is appropriate, the landscape architect shall advise Transpower with reasons, and Transpower shall advise the landowner in writing.
  - c) Subject to (d), if the landscape architect identifies that mitigation is appropriate in terms of the criteria in Table 1, he/she shall prepare a plan (the concept plan) to mitigate the adverse visual effects of the overhead line when viewed from the dwelling and the immediate curtilage of the dwelling. The mitigation techniques shall take into account the factors and criteria in Table 1.  
  
For properties where ecological planting has been identified in Table 2, the concept plan required by (c) shall be prepared by the landscape architect, in consultation with the ecologist, taking into account the criteria in Table 2.~~
- ~~25. The concept plan shall be prepared in draft and following review by Transpower shall be submitted to the landowner for comment.~~
- ~~26. The concept plan shall be reviewed by the landscape architect, in consultation with the ecologist (where relevant), following the receipt of comments, and following such further consideration, investigation and discussion with the landowner and Transpower as the landscape architect considers necessary, taking into account the criteria in Table 1 and the cost and practicality of implementing any specific request. The revised plan (the final plan) will be provided to the landowner as soon as reasonably practicable.~~
- ~~27. On receipt of written acceptance of the final plan, Transpower shall implement it within the first planting season following that acceptance, unless otherwise agreed with the landowner.~~
- ~~28. Transpower shall maintain the planting for 12 months after completion of planting.~~
- ~~29. In the event that a landowner advises Transpower that the landowner wishes to implement the final plan themselves, within 30 days following completion of all work specified in the final plan to the reasonable satisfaction of the landscape architect, Transpower shall pay the landowner the sum of money allocated in the approved concept plan. Where this occurs, condition 27 shall not apply.~~
- ~~30. In the event that a landowner advises Transpower that the landowner wishes to maintain the planting themselves, within 30 days following completion of all works specified in the final plan, Transpower shall pay the landowner the sum of money allocated in the approved concept plan for maintenance. Where this occurs, condition 28 shall not apply.~~
- ~~31. Within 12 months of confirmation of the designation, Transpower shall write to the Franklin District Council, and where relevant NZTA, informing it or them of its proposal to carry out landscape mitigation along specific sections or locations of roads and State highways in the Council's district, as shown on Maps 32-39 of Appendix V and seeking the Council's involvement in implementing the mitigation. The offer shall be for the purpose of mitigation of adverse visual effects of the overhead line when viewed from the public roads or other viewpoints shown in Maps 32-39 of Appendix V.~~
- ~~32. On receiving a positive response from the Council and/or NZTA (as applicable), Transpower shall provide a draft development plan, specifications, and costing prepared by a qualified landscape~~

architect as an offer to the Council and/or NZTA. The offer shall remain open for 12 months following commissioning of the line.

- ~~33. Transpower shall review any comments provided by the Council and/or NZTA and shall issue a final plan. The final plan shall be provided as soon as practicable to the Council and/or NZTA.~~
- ~~34. On the Council's and/or NZTA's written acceptance of the plan (where relevant) and agreement to implement the mitigation, Transpower shall, within 30 days, pay to the Council and/or NZTA the cost specified in the accepted plan (which shall include an estimate for a year of maintenance).~~
- ~~35. Transpower shall not be in breach of condition 31 to 34 in the event the Council and/or NZTA do not undertake the planting as provided in the final plan~~

#### Pre-construction activities

- ~~36. Prior to construction commencing, Transpower shall appoint a Landowner Liaison Officer, who will:
  - a) be responsible for maintaining contact with landowners and occupiers of each property prior to, and during construction; and
  - b) have a contact role with the landowner during the development of the Site Works Plan for individual properties.~~
- ~~37. Transpower shall make copies of individual SWPs available to Franklin City Council for information purposes, upon request.~~

#### Construction Management Plan (CMP)

- ~~38. Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, Prior to commencement of any construction activity authorised by the designation, Transpower shall submit a Construction Management Plan to Council prior to the commencement of works. ~~the Group Manager: Environmental Services for approval. The Council Group Manager: Environmental Services shall respond within 20 working days. Approval shall not be unreasonably withheld.~~ The construction management plan shall outline, where relevant, Transpower's intended approach to:
  - a. land stability management and sediment controls;
  - b. storage and reuse of topsoil;
  - c. management and disposal of spoil;
  - d. groundwater and stormwater management, treatment and disposal;
  - e. silt and dust control, during earthwork stages;
  - f. traffic/access management;
  - g. temporary activities and equipment storage in specified areas;
  - h. security and lighting during construction;
  - i. contaminated land management procedures;
  - j. construction noise ~~(as set out in conditions 39-42),~~ dust and vibration;
  - k. hours of work;
  - l. existing network utilities' protocols and guidelines;
  - m. subject to other specific conditions, cultural protocols and archaeological requirements;
  - n. vegetation clearance, disposal and restoration;~~

- o. the intended construction programme (including staging if appropriate);
- p. protocols and procedures for road controlling authorities and rail operators, where the line crosses that infrastructure;
- q. community information and liaison;
- r. contractor training; and
- s. generic contents of Site Works Plans (SWPs).

Nothing in the condition allows the Council, or any other party, to require more onerous controls than contained in the designation conditions.

#### **Construction and maintenance noise**

~~8. 39. All construction and maintenance work shall be designed, managed and conducted to ensure that construction and maintenance noise from the designated area does not exceed the limits in NZS6803:1999 Acoustics – Construction Noise at locations set out in section 6.2 of that standard.~~

Noise from any construction, maintenance, or demolition activity must be measured, assessed and managed in accordance with the requirements of 'NZS 6803:1999 Acoustics Construction Noise'.

~~9. 40. The noise limits required by condition 939 shall not apply to emergency work required to re-establish continuity of supply, urgently required to prevent loss of life or other personal injury or commissioning works, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effects, particularly at times when the stricter noise limits apply (eg, at night time).~~

41. Prior to any ~~significant~~ construction work beyond that contemplated by any prior Outline Plan of Works taking place, including any earthworks, a noise management plan ~~applicable to the construction and commissioning stages~~ shall be prepared ~~for the whole of the line~~, with the assistance of a suitably qualified and experienced person. ~~The plan shall set out the management procedures in terms of section 8 and Annex E of NZS6803:1999 and the works shall be undertaken in accordance with that noise management plan.~~

42. The noise management plan required by condition 41 shall be submitted to Council ~~the Group Manager: Environmental Services~~ at least 20 working days prior to the works commencing.

#### **Vibration, Aviation, Traffic Management Plan for road crossings and local roads, construction entranceways off public roads**

43. Vibration from all construction activities shall not exceed the limits of, and shall not be measured in accordance with, German Standard DIN 4150-3 (1990-02) Structural Vibration – Effects of Vibration on Structures

44. ~~Transpower shall, on a monthly basis during the construction of the line, inform the New Zealand Agricultural Aviation Authority, the Civil Aviation Authority and Ardmore Airport Limited (in relation to the towers within the conical surface only, as set out in the Appendix Map 8, Ardmore Aerodrome Protection Measures, Manukau Operative District Plan, 2002) of the construction activities completed in the previous month, and intended to be undertaken in the following month including:~~

- ~~a) erection of specific towers (with locations and heights); and~~
- ~~b) stringing of conductor and earthwires between specified towers.~~

~~For the avoidance of doubt, the requirement in condition 49 applies to each tower and conductor of each tower, not merely the commencement of tower erection or conductor.~~

45. Where required as part of any new Outline Plan process in terms of s176A of the Resource Management Act 1991, a Traffic Management Plan relating to construction works shall be prepared and submitted to Council prior to the commencement of works.

~~Transpower shall prepare a series of traffic management plans for road crossings and local roads used by heavy traffic in accordance with Transit New Zealand's Code of Practice for Temporary Traffic Management (COPTTM), after consultation with (as relevant):~~

- ~~a) Franklin District Council (Road Controlling Authority);~~
- ~~b) New Zealand Transport Agency (NZTA); and~~
- ~~c) the following key stakeholders:~~
  - ~~i. emergency services (including police);~~
  - ~~ii. bus operators;~~
  - ~~iii. schools;~~
  - ~~v. Housing New Zealand Corporation~~
- ~~d) any additional key stakeholders identified by Franklin District Council.~~

46. ~~A TMP shall be submitted to the Council and NZTA (where relevant) at least 20 working days prior to the commencement of construction of the relevant road crossing works, or works affecting local roads. The plans may be submitted in stages, with each stage being submitted at least 20 working days prior to the commencement of the work the subject of that stage.~~

47. ~~Council shall respond within 20 working days indicating whether approval is given or refused. Approval shall not be reasonably withheld.~~

48. ~~The TMP Traffic Management Plan prepared by Transpower shall recognise that the paramount purpose of roads is the free passage of the public and its vehicles.~~

49. ~~The TMPs Traffic Management Plan shall, where relevant, address and provide details of proposed road crossing works and general use of local roads by heavy vehicles and/or mitigation measures relating to the following matters:~~

- ~~a) details of the installation of any protection measures including, but not limited to, hurdles for subsequent line construction purposes;~~
- ~~b) details of any necessary temporary road closures, diversions, or deviations which are likely to be required during road crossing activities, including the likely date, time, and duration of such matters (any necessary temporary road closures should be effected during off-peak periods unless this is impracticable or would have adverse impacts on adjacent properties);~~
- ~~c) where diversions or deviations are required, information shall be provided by a suitably qualified and experienced traffic engineer of the traffic volumes and capacities of alternative routes, to ensure that such routes are both convenient and capable of safely accommodating any such diverted or deviated traffic;~~
- ~~d) details of the proposed signage to advise motorists, residents, stakeholders, and other road users of any road closures, diversions and delays, such signage to be sufficiently clear to be capable of ready understanding by the general public and installed at appropriate locations at least 7 days in advance of such road closures, diversions and delays;~~
- ~~e) details of methods of proposed information dissemination regarding construction activities and associated traffic effects, including but not limited to public notices in newspapers, radio announcements, information packages and direct contact with affected persons. (Such~~

information dissemination, and the chosen method of dissemination is to be proportional to the impact);

- f) Details of prior consultation or community liaison undertaken with affected residents, stakeholders, public transport providers, emergency services or representative groups regarding proposed road closures, diversions and delays, and any measures agreed with such groups to address any adverse effects or inconvenience that may arise; and
- g) identification of any measures for the purposes of mitigating adverse traffic effects of construction traffic, including safety matters (such speed restrictions and signage), relating to cyclists, pedestrians, disabled persons, and schoolchildren.

Advice Note: If temporary road closure is required, additional time may be necessary to allow the Road Controlling Authority to complete the consultation and give the public notices required under section 342 and schedule 10 of the Local Government Act 1974.

~~50. Prior to the commencement of construction, Transpower shall undertake a survey of the condition of the roads in the immediate vicinity of construction entranceways off public roads (consisting of a photographic survey).~~

51. Transpower shall repair any damage to entranceways and public roads in the vicinity of those entranceways resulting from impacts of its construction traffic.

