

North Island Grid Upgrade Project

Transpower New Zealand Limited

Evidence of **Di Lucas**, landscape planner

for South Waikato District Council

February 2008

(edited March 2008)

INTRODUCTION

1. My name is Diane Jean Lucas. I am a landscape architect and director of Lucas Associates Limited, a landscape planning, design and management practice established in Canterbury 29 years ago. I work throughout New Zealand.
2. I hold a Master of Landscape Architecture in planning (1994), a Bachelor of Science (1973), am a Fellow of the New Zealand Institute of Landscape Architects (1987), and, a Registered NZILA Landscape Architect.
3. I have been involved in various route selection projects, beginning with my initial employment with government agencies during the 1970's, including in the Waikato from 1976-1978 as Senior Landscape Architect. I have undertaken planning, assessment and design for various utilities, including for highways, motorways and powerlines, plus power generation and irrigation canal schemes. I have worked extensively in rural design, assessment and management.
4. I have undertaken region, district wide and local landscape assessments for various parts of New Zealand. I have identified outstanding natural features and landscapes in a number of regions, districts and locations and undertaken effects' analyses. I have undertaken natural character assessments and researched and analysed landscape values as a basis for management of heritage landscapes.
5. I have prepared land and ecosystem frameworks for various parts of New Zealand. I have prepared restoration guides and restoration plans for districts, areas and sites. I chair the Nature Heritage Fund, a contestable ministerial fund for the voluntary protection of significant indigenous ecosystems on private land throughout New Zealand, as reserves and covenants.
6. My landscape planning masters included researching methods for assessing landscape experience and landscape change. My thesis used land systems

analysis as a basis to developing methods to analyse the physical and perceived landscape and identify shared opinions on limits to acceptable landscape change. Subsequently, two projects I have managed were the only recipients of the New Zealand Institute of Landscape Architects premier landscape planning awards for the decade to 2005.

7. Earlier NZILA landscape planning awards received included two in 1989, one for a research paper, "*Limits of Visual Project Analysis*" and one for a landscape assessment project, the *Timaru 220KV Transmission Line Visual Impact Assessment*. The transmission line report was particularly commended for the integrated, multi-factor approach taken and clear sense of place.
8. Since 1994 I have facilitated a number of community consultation exercises to develop concept plans for various urban and rural areas, including within the Waikato.
9. I have read the Code of Conduct for Expert Witnesses in the Environment Court and my evidence is prepared in accordance with that Code. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
10. I have been asked by the South Waikato District Council to assess the potential effects of the TransPower transmission line proposal on the landscape, amenity and rural character of areas of South Waikato. That is, south from Lake Karapiro, within Sections 12 to 15 of the proposed route (attachment 1).
11. The proposal is for a 400 kV capable line with towers through the South Waikato District between 50 and 66 metres high (averaging 58 metres). The line would extend between two crossings of the Waikato River, one upstream of Lake Karapiro, the other upstream of Lake Maraetai, thus involving Sections 14 and 15, south from Tower 320.

12. Suspension towers and strain towers will be utilised. As noted by Mr Lister (para. 9), the towers would be taller and heavier in appearance than any currently constructed in New Zealand.
13. The proposed route from Auckland generally follows an existing route, with 25 metre high lattice towers which would be removed. However in South Waikato a greenfields route is proposed across the various ignimbrite landscapes.

The Landscape Resource

14. Considering Part II matters, landscape needs to be addressed with respect to s.5 of the RMA, as well as consideration as per s.6 and s.7. Land and landscape values associated with it are a natural and physical resource in terms of section 5 of the Resource Management Act.
15. Judge Jackson identified (NZRMA 59 WESI v. QLDC. para. 70) "*We consider it useful to consider "landscape" as a large subset of the environment" "We have already observed that 'landscape' involves both natural and physical resources themselves and also various factors relating to the viewer and their perception of the resources."* and, (para. 78) "*We also regard 'landscape' as a link between individual (natural and physical) resources and the environment as a whole."*
16. The landscape resource is important for social, economic and cultural well-being. The sustainable management of the landscape resource must be considered alongside the sustainable management of northern communities via energy supply. The use, development and protection of the landscape resource must be addressed. Significant adverse effects are to be avoided, remedied or mitigated.
17. As required by the 4th Schedule, landscape and visual effects are to be addressed, not visual effects alone. Landscape and visual effects are not

synonymous.¹

18. The Review recognised (para. 7.6) that “*Landscape/visual effects are one of the significant or irreversible changes to the environment that the proposal will bring about*”.
19. Mr Collier outlines the interpretation of the statute in the local documents, and I do not repeat the Objectives, Policies and Methods identified. I have reviewed the consultation, analysis and documentation of landscape values and landscape management methods undertaken by and for the South Waikato District and the resultant decision to utilise voluntary methods. Reviewing South Waikato District Council documents, there is clear recognition of generic and specific landscape values, and an expectation of their protection.
20. With regard to the Transpower proposal, as submitted by the Mayor with regard to the effects of routes on day-to-day farming - “*They would be affecting some of the best agricultural land in the world.*”² “*Neither has there been consideration of the wider environmental effects on the District and its inhabitants with regard to:*
 - *visual pollution;*
 - *the imposition of the pylons on the rural and urban landscapes;*
 - *restrictions to alternative uses of land in the form of economic development, tree planting and tourism opportunities;*
 - *protection of heritage and ecological features;*
 - *the adverse effects of noise from the transmission lines; and*

¹ W 114/94 J.A. Campbell & ors. v Southland District Council & B.W.Walker

² Submission on North Island 400KV Project. South Waikato District Council. 1 April 2005.

- *the effects of long-term exposure to electromagnetic radiation. (EMF).*

There are many distraught people in this district who feel their efforts in enhancing the environment they live in will be completely ruined by the proposed transmission lines and pylons. There is absolutely no doubt that the imposition of 70m pylons would seriously degrade the scenic beauty of our rural landscape, which is an outstanding tourist attraction”.

ROUTE SELECTION

21. Mr Lister provided a route selection analysis in 2004. Landscape units were identified which were assessed with respect to Natural Character, Landscape Quality and Landscape Absorption Capability. I was not involved in reviewing this methodology. As noted by Mr Lister (para. 16), the refined route design used the ACRE approach – Area, Corridor, Route, Easement. As noted by Ms Allan (para. 18-19) the ACRE model required adaptation to recognise different factors encountered.
22. The planning process provided identifies a Desk-Top analysis stage to identify the Area through constraints mapping. This included:
 - *“Visual – confirm criteria for evaluation of exclusion areas i.e. low visual absorption capacity and high visibility, natural features (including those mapped in district plans – lakes, major rivers, coastlines), all protected natural/scenic/cultural areas (including forest parks national parks, outstanding landscapes mapped in district plans, reserves, historic sites).*
 - *Social constraints – confirm criteria for identification of possible exclusion areas i.e. avoid urban settlements, and sensitive activities.*
 - *Ecological – confirm criteria for identification of possible exclusion areas i.e. habitats of ecological or scientific significance, wetland areas, floodplains, large scale forested areas.*

23. This was to provide “a preferred path of least constraints”. However there are fundamental gaps in the approach taken to first assess the Area. The Corridor assessment was then undertaken, and it assessed “*Visual – desk top identification of exclusion areas*” and repeats the dimensions quoted above for Area analysis, adding “*1:250,000 mapping*”. Thus the Visual assessment for the Area and Corridor analysis seem to be very similar tasks, mapping constraints based on the same criteria and at a coarse scale. Some further dimensions were to be explored, including:

- *Recreation and tourism – identify possible constraint/exclusion areas of high tourist and recreational value.*
- *Tangata whenua – desk top identification of culturally significant sites and landscapes, urupa, (including those listed in District Planning maps).*
- *Historic heritage – review NZHPT overlay of historic sites.*

The last ignores heritage landscapes and is narrowly confined to HPT recognised sites.

24. With utilization of a desktop approach to identify and confirm the transmission line corridor, it is easy to see how errors have occurred in values not being adequately accounted for. The local authorities traversed have very different documentation of values and very different methods for managing the values within their territories. For South Waikato District the values are not explicitly mapped as the methods chosen are voluntary. The vacuum of delineated landscape values in official documentation does not equate with a vacuum with regard to highly valued landscapes on the ground.

25. As identified in the methodological analysis, a risk of this approach is “*Insufficient identification of constraints [as desktop only] results in poor area/corridor/route definition and need to re-assess are/corridor/route*” The Transpower team rated this of low probability / low consequence. The recommended Treatment was to “*Ensure access to sufficient databases*

available". However there are no accessible databases for the Arapuni to Tokapuhi length of South Waikato. This is due to a deliberate planning strategy sought by the community and agreed to by the Council.

26. The methodology for the Route stage states (page 8) "*Note no access to private land is required at this stage, however some viewing from public places and fly over may be necessary (including consideration of the following):*

- *Visual*

27. Ms Allan notes (1st brief, para. 22) that Mr Lister developed a "*natural character and visual analysis*". Whilst utilizing a multi-criteria analysis approach for corridor and route selection resulting in "*Multi-Attribute Decision-Making in Uncertain Situations*" (Allan 1st brief, para. 29), there seems to have been a fundamental methodological problem in criteria or attribute selection and application.

28. Ms Allan considers that effects would be very localized (2nd brief, para. 307). I assess that effects through rural South Waikato will extend over a considerable area. That considering the site coverage involved in construction, the effects are very extensive and cannot be considered as "very localized" when compared with the permitted baseline of a 10 m high structure.

29. Considering visual prominence, Mr Lister assessed (Table 1) that in general towers are likely to be prominent for a distance of 1 km, unless in silhouette on a prominent skyline, and become background at distances greater than 3 km. In a highly picturesque landscape, and/or where views are often not back-grounded by containing topography, and that is not particularly cluttered with structures, the visual contrast between the tall tower structures and the landscape setting can be considerable, and thus generate considerable landscape and visual effects. As recognised by Mr Lister (para. 28-29) vegetation close to the viewer and thus screening the structure, or vegetation forming the backdrop to the structure, can lessen visual

prominence. This is an aesthetic or compositional test for visual effects.

30. However where the place has particular meaning and associations, where views out to meaningful features would be interrupted by the structures, then the landscape effects can be significant for a greater distance.
31. Mr Brown's advice (April 2007) regarding Zones of Visual Influence (ZVI) considered the structures might be visually prominent out to 2.5 km. This measure is not derived from an assessment of local landscape effects or landscape absorption. The route is proposed through many types of landscapes and absorption capability and ZVI vary from one to another. Considering structures of the proposed scale and character placed within particular views, foci and associations, in my opinion significant adverse effects could occur at much greater distances than 2.5 km.
32. Mr Mansergh has provided ZVI mapping across three Districts. Terrain based mapping, thus not allowing for view interruption by vegetation or buildings, and addressing the structures collectively rather than individually, does however provide a starting point to give some indication of potential visibility. From his ZVI analysis, Mr Mansergh identified (para. 3.18) it was through the South Waikato District that the potential for the route to result in a change in visual character had greatest likelihood. Excerpts are included as attachments 6 and 7.
33. Addressing consultation and social impacts, for consultation Dr Phillips provides a graphic in para. 9 of the spatial recognition of affected parties – “directly affected” being those with land in the easement along the route, the affected locality is a band a hundred or so metres wide either side. Beyond is the “wider community”.
34. In para. 44 Dr Phillips notes that when the proposed line and tower positions were being fixed, there were South Waikato landowners who refused access. He notes (page 27 (h)) that “*visual intrusion was seen as a universal issue*”, but also the perception (f) that towers “*offend the landscape*”, and “*that they would degrade the utility of the image of the countryside as an*

overseas marketing tool for our produce.” The height of proposed towers above the height of mature vegetation, and consequent difficulty of integrating them (g). Also, the removal and prevention of trees along the route.

35. Dr Phillips assesses social impacts. He notes (para. 155) that “landscape and visual” have a social aspect, as do land use and tourism. He thus excludes any consideration of these areas in his assessment as *“It is important to avoid “double counting” of effects in the assessment of environmental effects (AEE). “For example, people may value their view of native bush as part of their quality of life but the loss of an area of bush or a vista are dealt with in the assessments of the ecological and visual effects respectively.”* (para. 156)
36. I consider the assessment methodology has been inadequate for assessing landscape values and landscape effects. Not only has the landscape and visual assessment been largely confined to the visual, associative landscape dimensions as to landscape meaning have been ignored in other assessments to avoid double counting.
37. Dr Phillips concludes (para. 212) that the proposal would not pose a *“threat to cultural integrity in terms of the continuation of local traditions, and customs of any of the population groups along the route of the proposed line”* during either the planning, the construction *“or during operation of the proposed line.”* Considering the cultural integrity of the communities associated with the Arapuni – Tokapuhi landscape, I consider the assessment to be inadequate. As identified by Ms Rose in her peer review (para. 22), there was inadequate information on communities and their capacity to absorb change. I note that the methodology did not need any access to private land for the Area, Corridor or Route stages of the process, it was desktop and as viewed from public places.
38. Dr Phillips does however acknowledge that *“The proposed line does pose a threat to some cultural values related to individual properties. Examples which were avoided in the final alignment included places where a placenta had been buried by the property owners, and trees had been planted by*

ancestors.” (para. 84)

39. Considering the effects of the proposed line in operation, Dr Phillips considers two factors contributing to these being more modest and focused (para. 260), community turnover and adaptation. He suggests they adapt or leave. Whilst these factors may be particularly significant for more transient communities, particularly urban communities, I question their degree of relevance in the long lived-in rural lands of the South Waikato, specifically around Arapuni – Te Waotu - Tokapuhi. Many of these lands have been owned, occupied and managed by particular families for generations.
40. Considering effects on wellbeing, Dr Phillips does not address the encroachment on people’s loved lands and outlook. Well-being is addressed overly narrowly (para. 262 – 268). The proximity of the route and intrusion into their space, their land and landscape, and into the landscape commons they enjoy, has not been considered. The visibility and/or the sound of the line may signal a disruption to a place that a person is strongly associated with, and hence upset their wellbeing. However, some potential for ongoing landowner frustration as a result of tower location is acknowledged (para. 268).
41. Considering effects on people’s way of life, Dr Phillips recognises (para. 270) that *“People’s satisfaction in being out on their properties may diminish from the visual intrusion of the proposed line but again, people tend to become accepting of things and notice them less, or leave.”* As with wellbeing, a narrow interpretation has been undertaken and the generalized conclusions for the full route may apply less in rural areas such as around Arapuni – Te Waotu - Tokapuhi. Whilst urban and lifestyle properties typically change hands every few years, for Arapuni – Tokapuhi farms on highly productive land and for the Raukawa peoples, land ownership is more typically considered intergenerational. Ngati Raukawa peoples have lived in this area for over 500 years and have a significant relationship with the landscapes associated with the route.
42. New Zealand has a very strong and particular private land culture. With a freehold farming structure in this South Waikato area for well over a century,

and a long history of dairy use, there is a sense of permanence, a stability, an attachment, and a strong insider culture that has emerged. At various fora, and in relation to various activities and planning regimes, the people in this area have vigorously defended their right to manage their own landscapes. To not be told what they should or should not do. They have a pride in nurturing their landscapes privately and as a community, responsibly and entirely independently of outside intervention. In the final sentence to para. 273 Dr Phillips hints at this with his reference to the *“issues over the loss of partial control over a portion of their land.”*

43. Dr Phillips ignores the potential long-term effects of the presence of the line through this landscape on the integrity of the cultures of the South Waikato. With people wedded to particular lands and landscapes through birth or their personal attachment through involvement there, the intrusion of the presence of the structures and their operation may continue to affect their relationship to those lands and landscapes. If particular individuals or families are destabilised by their negative perception of the presence of the line, then this could affect the neighbours or others associated. Dr Phillips' conclusions (para. 275 – 6) as to unlikely effects on culture and community have not been substantiated.
44. Considering the attachment to the Arapuni – Te Waotu - Tokapuhi landscapes, Dr Phillips' assumptions that people would move or accept the line (para. 277) are seriously questioned. Dr Phillips acknowledges (para. 278) that there are potential ongoing issues from visual effects, but he claims they are addressed by other witnesses (para 297). However Mr Lister addresses only views from the road plus extrapolated dwelling views. Whilst he accepts a more holistic landscape approach is appropriate, he has not addressed the potential effects of disruption of this lived-in landscape that has very high attachment value. Some information gaps were identified in Ms Rose' review (para. 31).
45. Dr Phillips contends (para. 291) that significant effects have been avoided through avoiding population centres. However it is not a “numbers game”. More dispersed peoples, with a considerable attachment to a rural area that has no existing transmission lines, could be very significantly affected by the

disruption of their valued landscape by the perceived intrusion by the large transmission line proposed.

46. The transmission line would not be a 'foreign' introduction in being an unknown type of activity. On the contrary, with the Waikato power scheme on their western boundary, the peoples of South Waikato are very familiar with electricity generation and transmission structures.
47. Considering the attachment to the landscapes of Arapuni – Te Waotu - Tokapuhi, their traditions of landowner care and decision-making, my landscape assessment does not support Ms Rose's conclusion (para. 107) that operation of the line would mainly involve only effects from on-going maintenance activities, which she assesses as minor or negligible. As identified in her Appendix 1, the effects she anticipates for this length of the route (Section 14) are from Towers 332 – 341 *"Effects on waterfall and picnic area"*. (refer my Appendix A.1)
48. Ms Allan outlines the ACRE methodology in her first statement. She notes (para. 60) that at the end of the Route stage there was a visual and landscape description prepared. Route sections had been analysed in terms of Landscape Absorption Capability (para. 62). Routes were analysed with respect to a number of aspects including *"impact on landscape values"* (para. 67). However as noted in para. 73 (e), visual impact/landscape values were given *"slightly less weight"* as there was a view that *"areas with highest landscape and natural character values had been avoided in identification of the routes"*. It is unclear how the *"highest landscape values"* were excluded in the route identification process.
49. The route analysis preferred a western route crossing to the east for the southern end. As identified by Ms Allan (para. 84), the southern end at that time involved 30 km of forestry which was assessed to have lower landscape value and greater absorption capability. However the majority is being cleared (attachment 4). Ms Allan notes (para. 176) that by the completion of the study, half of it had been cleared.

50. Ms Allan acknowledges there are “*unavoidable visual impacts*”, stating in her second brief (para. 69) that “*The choice of route and alignment within the route has endeavoured to avoid significant adverse effects on the landscape in the widest sense, and in terms of visual impacts on people.*”
51. Considering the band of land that is designated, Ms Allan states (para. 71) that “*no houses or workplaces are to be placed within the designated area.*” However the full length of the lands designated from Arapuni through to Tokapuhi are primarily workplaces for the people of those lands. A building is not necessarily the cue to a ‘workplace’ in this landscape. Being some of the most productive lands in the country, they are intensively managed. The lands are a workplace, and a number are extensively within or close alongside the designated area.

SOUTH WAIKATO LANDSCAPE ASSESSMENT

52. In 2000 Gavin Lister undertook a landscape assessment of the South Waikato District and prepared a draft report from this for the Council as a basis for District Plan development. The purpose was defined as to both address s6(b) and to describe the landscape features that contribute to the amenity and quality of the District.
53. Mr Lister used our Canterbury definition³, as recorded through case law (W114/94), to define “landscape”. “*Landscape*” *encompasses both physical and subjective aspects. The physical components result from natural processes and human activity. The significance of the physical landscape, however is how it is perceived and experienced and what it means to people.*” “*‘Landscape’ is the relationship between natural and human landscape patterns, human experience and perception of these patterns, and meanings associated with them.*” I am comfortable with this definition and its application for consideration of the landscape as a resource and for consideration of landscape effects.

³ *Canterbury Regional Landscape Study*. Boffa Miskell and Lucas Associates. 1993

54. However for Transpower, Mr Lister has assessed the proposal against 3 attributes:

- natural character
- landscape quality, and ,
- landscape absorption capability.

He states that each of these was assessed in terms of physical, perceptual and associational dimensions of the landscape. He notes (para. 34) that “associational” means those aspects, values or meanings associated with a landscape such as historical associations, or value to tangata whenua. ‘Perceptual’ refers to those aspects related more particularly to sight and perception such as vividness, memorability, distinctiveness.

55. Mr Lister’s identified factors now favour natural values. Assessing “landscape quality” the key physical expression assessed is the “*Intactness of natural features, patterns and processes*”, that is, natural features, natural patterns and natural processes. The statutory rationale is unclear. However the perceptual dimensions of “coherence”, vividness and memorability are included, as well as associational dimensions.

56. Mr Lister states (para. 34) that a fuller list of criteria is in his 2004 report, but I have as yet been unable to access this. In his earlier assessment of South Waikato Landscapes⁴, Mr Lister addressed ‘picturesque scenery’. To address significance, he addressed three dimensions, the physical characteristics; the visual and perceptual aspects, and, meanings or values associated with the landscape (page 25). These each involved several assessment matters, only one of which is focused on naturalness. The earlier study thus did not exhibit the bias to natural values that the Transpower study demonstrates. It allowed for recognition of highly valued cultural landscapes.

⁴ *South Waikato Landscapes*. 2000. draft report for SWDC

57. In his evidence Mr Lister notes (para. 35) that 'Natural Character' includes both biophysical and perceived naturalness. Whilst I agree, the naturalness need not dominate the landscape's appearance, as he suggests.
58. This study assesses 'Landscape Quality' in terms of the "Pigeon Bay Criteria" which originate from our Canterbury regional Landscape Study that explored s.6(b), that is, outstanding natural features and landscapes. However to address 'landscape quality' per se, as in the qualities to address to then assess landscape effects as per the 4th schedule, these need not be based on outstanding natural landscape dimensions. It is important that s.6(b) landscapes be assessed and addressed in this study. However, there may be very important landscapes and high landscape quality that are not a result of natural landscape values. Landscape considerations are not confined to s.6(b) landscapes. As Mr Lister acknowledges (para. 379), a s.6(b) assessment is focused on protecting naturalness. In my opinion the landscape quality assessment has not adequately addressed the landscape quality spectrum that can reasonably be expected to be of relevance under Part II. However I support that there be physical, perceptual and associational factors addressed.
59. Considering the 'Landscape Absorption Capability' attribute, I agree with Mr Lister (para. 37) that physical, perceptual and associational are appropriately addressed. However, the physical and perceptual factors addressed consider only visual prominence. That is, visual absorption in an aesthetic way. To address associational factors, Mr Lister seeks to anticipate the sensitivity of people to the structures in a particular landscape setting. He makes an assumption (para 37 (b)) that "*Transmission lines will generally be regarded as more obtrusive in natural areas and those areas valued for scenic qualities, and less obtrusive in 'working landscapes' such as ordinary rural farmland, plantation forests, and industrial areas.*"
60. The Arapuni – Te Waotu – Tokapuni landscape is highly valued for its scenic qualities. It is a complex volcanic landscape, formed on the old

Whakamaru Ignimbrite Plateau that was generated at Lake Taupo⁵ and emplaced across this area, that formerly had high relief, some 340,000 to 320,000 years BP. Much older ignimbrite layers below project as bluffs, outcrops and tors⁶ (Appendix A.4).

61. Comparing the various routes, Mr Lister assessed (para. 69) that in terms of landscape and visual considerations, the eastern and western routes were each preferred in 6 sections, and the scoring was even in the remaining 3 sections. For section 14 he assessed that *“The eastern route is preferred because of the extent of plantation traversed, which would reduce its visibility and impacts on settled landscapes.”* However this assessment is already outdated as subsequent to his corridor and route phase work there has been a large change in the landscape character and absorption capability as most of the plantation forestry has been or is being removed from (attachment 4). The landscape through which the route would pass in section 14 would involve only small areas of plantation.
62. As outlined by Mr Lister (para. 73) the Easement Phase sought to reduce visual effects - a change from landscape considerations to only visual considerations. Prominent viewshafts, house outlooks, public viewpoints, high quality landscapes, high natural character landscapes, and significant indigenous vegetation, were to be avoided. Low routes and (m) “working landscapes” were to be preferred – areas with modified pastoral farming or plantation forestry.
63. A visual and landscape effects methodology is described, including the physical, perceptual and associational factors. However the process did not allow for these factors to be addressed. The analysis is from roads and desktop – maps and aerial photos (para. 79-80).
64. Thus whilst I endorse Mr Lister’s intended process, this has not been undertaken. The assessment is as an outsider: a drive through and desktop.

⁵ Geoffrey Lamarche, Paul C. Froggatt. 1993. *“New Eruptive vents for the Whakamaru Ignimbrite (Taupo Volcanic Zone) identified from Magnetic Fabric Study”*. NZ Jnl. Geology & Geophysics Vol. 36:213-222.

⁶ Assoc. Professor Roger Briggs, Earth Sciences Department, Waikato University. *pers.com*. March 2008.

The Arapuni – Te Waotu – Tokapuhi landscape is a long lived-in and loved place; a complex cultural and heritage landscape.

65. Mr Lister describes how he assessed effects from desktop and road views as to the significance due to proximity to houses, depending on proximity and orientation of the house. But this is a lived in land. It is not a place where the view from the sitting room is the extent of people's relationship and experience. The view out the front window may be very important to residents, but it's not all that is important. During the daytime the lands are traversed. They are intensively managed lands. The rural landscape context and views beyond are much enjoyed. Mr Lister concedes (para. 82) that his methodology of using road-based assessment and desktop analysis for views from houses is an estimate only, and is very limited. From my analysis, I consider the landscape and visual effects for private lands in the Arapuni – Te Waotu – Tokapuhi area have been considerably underestimated.
66. What is viewed has not been adequately considered. To consider views only up to 1 km as having potentially moderate effects is to underestimate the importance of key landmarks, such as Maungatautari and the bluffs below to the natural canyon of the Waikato (attachment 35), which is a physical, perceptual and associational focus for many in this area. Maungatautiri looks and 'feels' close. Whilst across the river, it is very much part of the Arapuni - Te Waotu landscape.
67. The people of the area have long had a close affinity with the mountain. This has recently been expressed through the communities' involvement in the management of the 3,400 ha 'mainland island' reserve, with activities such as in pest exclusion, pest control, wildlife monitoring and management (map attachment 36). Their efforts have recently been rewarded with the hatching of a kiwi chick on the mountain – an achievement reportedly unknown for perhaps a century.
68. The Mangatautari volcano has long been a central symbol for many peoples. On the lower slopes, farms have replaced earlier Maori cultivations, kainga and pa, and the bushline receded. It is from beyond that the

mountain as a total feature has long been much appreciated. As told in waiata and translated by Sir Apirana Ngata:

“Behold the mist suspended high up yonder,

On the peak of (Maunga) Tautari, which causes me to weep”

69. The South Waikato Landscapes study recognised the importance of “*natural landscapes that provide a source of spiritual inspiration or contemplation for many people*”. Maungatautari has this role. As also identified by Mr Lister in 2000, there can be landscape value in continuity. “*Landscapes or landmarks that seem constant provide a sense of continuity for individuals and communities.*” Maungatautari is the most substantial and prominent of the many local natural and cultural features that exhibit such continuity value in the Arapuni – Te Waotu landscapes.
70. As well as all the private land views of and associations with Maungatautari from the Arapuni – Te Waotu area, it is enjoyed daily by many visitors. The photo (attachment 36) view west from Arapuni Road east of the Waikato and just above the proposed Arapuni Crossing (and Tower 321) is the view on the main route for the many tourist buses that travel daily through the South Waikato District in their journey from Waitomo Caves to Rotorua. The structures would cross this important public and tourist view of Maungatautari at an oblique angle, around 600 metres away. Whilst the mountain is some 8 km distant, the structures located in the foreground would have significant effects on this view.
71. With regard to Mr Lister’s road-based analysis (para. 79), it is unclear whether the tourist experience from Arapuni Road was adequately addressed (attachment 36). Mr Lister recognises at para. 424 that it is an important east-west route.
72. Mr Lister recognises that Maungatautari is an outstanding natural landscape or feature (para. 402). Lapping on to the core volcano, many millennia ago the lower slopes were draped with the furthest extent of an ignimbrite layer originating from west Taupo. It flowed some distance up the Maungatautari

volcano before coming to rest. This Ahuroa Ignimbrite is resistant to erosion.⁷

The WAIKATO RIVER & ARAPUNI CROSSING

73. Whilst long manipulated, the Waikato River draining Lake Taupo and much of the volcanic plateau, is a major natural feature of the North Island. Through the South Waikato it flowed naturally between distinctive ignimbrite bluffs and some flights of river terraces. A series of dams were constructed that have formed a series of lakes along its course (attachment 8 and 29; Appendix B.1). However, the gorge at Arapuni has not been flooded (Appendix B.1 and B.2). The river is a taonga for Ngati Raukawa.
74. I agree with Mr Lister (para. 365) that, assessed in its rural Waikato context and many decades after its formation, Lake Karapiro can be considered an outstanding natural feature.
75. For the Karapiro crossing, Mr Lister recognised the values and meanings with respect to the Waikato, and that that crossing involves a line upgrade rather than a greenfields development. The Arapuni Crossing would be a greenfields crossing, as noted in para. 420.
76. Mr Lister assesses that the river corridor, including the upper Karapiro, has a moderately high degree of natural character and moderately high landscape values (para. 463). Mr Lister has addressed it as a length of upper Lake Karapiro. There is however a length of perhaps 10 km of natural flowing river below the Arapuni Powerhouse and upper Karapiro (Appendix B.2). A flowing river, not calm lake waters as formed by the dams above and below. The Waikato River flows from the Arapuni Powerhouse down to meet the calm waters of Karapiro toward the mouth of the Pokaiwhenua Stream. Below the Arapuni Dam, the river corridor is enclosed by dramatic ignimbrite bluffs through the gorge, as well as flights of terraces below. In this long-settled landscape, much of this corridor length is highly vegetated with high naturalness (attachments 35 and 10, appendix B1, 2 and 3).

⁷ J.M.Soons, M J Selby. ed. 1982. "*Landforms of New Zealand*" p. 166.

77. In his assessment of South Waikato (2000, p. 29) Mr Lister noted that ‘The natural qualities of the Waikato River have been reduced to some extent as a result of its almost continuous damming in the sections adjacent to south Waikato and because the adjacent land-cover is mostly modified. These are contributory reasons why sections of the river are considered to be landscapes of significance at the regional or district level, but not “outstanding natural features or landscapes.” ‘The river length under consideration at Arapuni is however a natural length, not a dammed length. The River has cut down through ignimbrite to the older layers displaying dramatic columnar jointing (attachment 35, photo; Appendix A.4). The rock originating from Taupo is naturally displayed and linked by the waters flowing from that crater basin. The transmission line route is proposed to cross a length of naturally flowing Waikato River with important natural character, heritage, landscape and amenity value.
78. The Arapuni Gorge displays the heritage features of the 1929 Powerhouse, a registered historic place, and 1925 Swing Bridge, with the Arapuni Village above now being recognised for its heritage value (Appendix B.2 and B.3). The hydro station and dam were among the first to be built on the Waikato River. Arapuni is not only the oldest, but has the largest generating capacity of any single power station on the Waikato system. The swing bridge access is suspended 54m above the power station, being 152m long with a slope of 8m. It can be accessed from Arapuni Village and the Waikato River Trail and was erected in 1925 to enable access for power station employees. *“Not for the faint hearted, those who venture on are rewarded with views of the scenic gorge.”* Below the gorge the corridor opens and the crossing is proposed.
79. I agree with Mr Lister’s assessment that Tower 321, the first tower in South Waikato District, would be a prominent feature in an open location near the edge of the river corridor escarpment (para. 463). It would intrude on the river landscape corridor between the Arapuni Dam and Lake Karapiro.
80. The structures would be prominent as experienced from down at the river below. The tall tower would intrude into this landscape where such structures have been carefully avoided in the past. Whilst Arapuni is a power

generation centre, structures were confined to the south and line routes to the west. The River north of the Powerhouse has been largely uncluttered by structures excepting the bridges slung above (Appendix B.3). A natural river has been allowed. The north to east landscape sectors were kept “free”. The Transpower proposal is now to breach this traditional protocol and sling lines across the natural river section and introduce large towers and lines to the north and east of Arapuni village. They would adversely affect the natural character, landscape, heritage and amenity values of the river corridor. I assess this to be inappropriate. I note that Mr Lister did not address the heritage landscape of Arapuni.

81. In my opinion, the NZCPS principal of seeking to locate compromise where it already exists is more appropriate than to introduce the line as a greenfields route. The bridge crossings allow the natural river corridor values to be enjoyed.
82. Ms Allan (2nd brief, para 237) does not consider s.6(a) particularly relevant . She considers the areas crossed do not have high natural character values and the towers would be set back from the banks. She considers either lattice or monopole structures to be appropriate. This is not supported by Mr Lister’s analysis.
83. Considering s.6(a) the natural character of the river corridor requires consideration. The presence of the towers either side, and the suites of lines draped across, will together detract and distract from the natural character of the river corridor experience. The experience from below and from above will both be disrupted.
84. The naturalness of the series of lakes and river lengths that form the South Waikato District’s boundary is an important visitor attraction and recreational destination. The waters and banks are important for various sport and recreation activities, including enjoyment of geomorphic and historic features. Whilst in 2000 (page 20) Mr Lister noted “*For much of its length the river is only accessible by boat.*” And, “*both physical and visual access to the river is restricted for much of its length, particularly the stretch between Mangakino and Arapuni.*” This is rapidly changing.

85. The Waikato River Trails project is to establish 100 km of river trails, by the time of the 2010 World Rowing Championships on Karapiro, which will link these features, including the full length from Whakamaru downstream to Karapiro. As the trail sections are being developed, public enjoyment and recognition of the river-based resource is increasing in number and type – *“wending their way along a path that encompasses the magic and beauty of native bush, exotic forest, historic landmarks, interesting rock formations and geological delights, grassed farmland, open reserve, boardwalks through significant wetland, and of course expansive lake and river views. Public access to these natural assets has only been made possible by construction of the trails. The driving force behind this are the keen group of volunteers who are behind the Waikato River Trails Trust.”* (www.waikatorivertrail.com).
86. The trail already extends to the Arapuni swing bridge (attachment 35, map on left). The length under the proposed pylon route 1 km to the south, and beyond, is not yet constructed. This extension is referred to by Mr Lister (para. 463), and the section to Karapiro is to be constructed over the next year. The trail will continue north, in parallel with Horahora Road, and is planned to enjoy the views of an important series of river terraces. The pylon route is anticipated would detract from the experience of the natural values of the river corridor that are experienced from the trail.
87. The Waikato corridor at Arapuni has been recognised as an important location geomorphologically. It is from here that the river historically exited to change course from its original outlet through the Hauraki Plain, via the Hinuera Gap (refer drawing, attachment 35, Figure 8.1), to some 20,000 years B.P. diverting and draining via the Waikato or Hamilton Basin⁸. The flight of alluvial terraces within the right-angled bend of the river/lake (opposite the Piarere Stream mouth and SH29 intersection with SH1). This terrace flight has been recognised (M.J. Selby 1986) as of “international importance” in the Waikato Geopreservation Inventory. The lower terraces of the sequence have been inundated by Lake Karapiro. However upstream the flight of alluvial terraces below Arapuni has not been inundated. The Arapuni terraces are displayed stepping down on the true right of the river,

below proposed Tower 321 (attachment 10, as viewed from Powerhouse Road).

88. Ms Allan comments on the Waikato River Trail as an emerging recreational and tourist feature, as identified by Mr Bamford, and she assesses (para. 172) the alignment would not have any affects. However she does not recognise the full length of the trail that is planned, and hence does not recognise the potential effects on that experience. In my opinion, the pylon route would not maintain or enhance the amenity values variously and increasingly accessed and enjoyed along the river corridor from Arapuni to Karapiro.
89. Downstream of Arapuni, Mr Lister described this length of the Waikato River. *“It has picturesque qualities because of the rolling pastoral farmland and rock outcrops characteristic of the district, the distinctive river terraces and the backdrop of Maungatautari.”*
90. In his assessment of South Waikato Landscapes⁹, Mr Lister addressed thus ‘*picturesque scenery*’ rather than only natural landscapes. He assessed (page 19) several landscapes including the Arapuni Gorge, below and above the Powerhouse, as a *“large-scale picturesque landscape”*.
91. The Arapuni Ignimbrite cliffs were assessed by Mr Lister as an outstanding natural feature (page 27). The various sequences of bluffs along the Waikato River corridor are of geomorphological and landscape legibility interest, being formed by the down-cutting of the river. They are also of considerable aesthetic value - picturesque and memorable.
92. In 2000 Mr Lister identified that *“At Arapuni the arrival into the district is more dramatic. The road winds down into a strongly enclosed gorge with dramatic cliffs in order to cross the Waikato. (attachment 36, view from east of the river across to the gorge bluffs and Maungatautari volcano behind.)* Mr Lister noted *“Cliffs in unflooded gorge section below dam has geological*

⁸ *Landforms of New Zealand*. Ed. J M Soons & M J Selby. Longman Paul. 1982. p.151.

⁹ *South Waikato Landscapes*. 2000. draft report for SWDC

significance as first reference to ignimbrite as a generic term. It is listed in Geopreservation Inventory as being of international significance.” He identified (page 30) they are of “landmark significance at entrance to the district from the west.”

93. Mr Lister continued, *“From Arapuni the road passes through a consistent landscape typical of the northern part of the district. The main landmark on this road is the 2 km stretch where the road parallels the Pokaiwhenua stream with its picturesque rock outcrops and waterfall.”* The terrain-based viewshed mapping by Mr Mansergh shows the pylon route structures would potentially be visible for this length of road. In 2000 Mr Lister had assessed the Pokaiwhenua waterfall and cliffs as a *“medium scale picturesque landscape”*, and *“a picturesque feature because of the rolling pastoral setting characteristic of the district...”* (page 30).
94. Just north of the Arapuni Crossing, Tower 320, and possibly 321 to 323, are proposed by Mr Lister to be monopoles. These would be somewhat more elegant than lattice structures for closer views. However, they would be very substantial and hefty structures and would be more prominent than lattice towers for distant views, which causes concern. Further, as identified in visual assessments of wind turbine towers, it is important to not have different tower designs in a single view. In terms of landscape integrity and aesthetic coherence, it would not be appropriate to have a visible change from lattice to monopole construction. If able to be separated into quite different visual catchments, only then would monopole sections be appropriate. Mr Lister recognises this problem (para. 461).
95. The village of Arapuni came from the power scheme development and management. It is increasingly a lifestyle place and its heritage increasingly valued. It is now a village on the river and amidst a rich rural landscape. The rural landscape context is a key attribute. Downstream of the dam the river gorge is enjoyed, and its associations with the uncluttered rural lands to the north and east of the village. It is recommended there be avoidance of visual and landscape effects from a pylon route on the uncluttered setting to the north and east of Arapuni village. However the proposed route passes just 800 metres from the village and extends across the rich farmland beyond.

With power structures then on all sides, it would affect the village-rural landscape relationship.

SECTION 14

96. Considering Section 14 through the South Waikato District (from para. 411), Mr Lister identifies that this landscape has moderate natural character. The intricate landform patterning is distinctive and reinforced by the traditional dairy landscape character overlain. The Arapuni – Te Waotu landscape has a very established character. The farming patterns largely dictated by the ignimbrite landform character with distinctive hills, gorges, bluffs, watercourses, outcrops and tors (Appendix A.1 – 4), and complemented with native vegetation, tree plantings and activity nodes. Seasonal patterns, such as the tall, ripe cornfields of autumn in contrast to their grazed and cultivated bareness later; the scattered clumps and rows of deciduous tree cover; the varying lushness of the pasture (attachments 17 – 18); hay and silage making; and, crops of calves, contribute importantly to the rich rural landscape character. As noted by Mr Lister (para. 416) it is a traditional dairying landscape. It is the essence of the rural New Zealand signature that has long been projected to the world. With several generations having produced from these lands, the Arapuni – Te Waotu landscape provides scenic settings for the marketing of quintessential rural imagery (attachment 17, lower). At Kohatunui, the ‘McMeekan model farm’ on the Little Waipa has long been one of the demonstrations (Appendix A.1 - 3), various Attachment photos show others (cover, attachments 16 – 24, 26, 36) and art interprets them (e.g. attachments 27 – 28).
97. A series of cone-shaped landforms that are eroded ignimbrite remnants, including Papatangi (attachment 24), Panitutae and smaller ones are distinctive natural landform features. In his assessment of South Waikato Landscapes (2000, page 19), Mr Lister had identified “*The numerous rock tors and outcrops*”, and “*The characteristic landscape comprising steep rolling hills and cones*” as “*small scale picturesque landscapes*”. Mr Lister specifically identified (page 35) Panitutae as a “*Large and prominent example of ignimbrite outcrop (tor) characteristic of area. Local landmark on Huihuitaha Road. Picturesque setting above Huihuitaha Stream.*” These

landforms are examples of the myriad landforms contributing to the picturesque Waotu landscape that is proposed to be traversed.

98. Tor- and cone-like features can occur on eroded ignimbrite sheets associated with former fumaroles (volcanic vents), and they also occur as scattered remnants of older columnar jointed ignimbrite (Appendix A. 2 – 4); also, attachment 5, left, a dramatic example at Lake Whakamaru which featured hill-top pa; attachment 16, a tiny example; located attachment 30).
99. Between Huihuitaha and Waotu Roads, around the Little Waipa Stream, particularly Kohatunui, there are dramatic natural features, including the waterfall Ngamokiamutu, pools and tors (Appendix A.1 - 3). These areas have long been an attraction and of recreational value to both the local and the wider community.
100. The protected bush remnants around Waotu are renowned. The private protection of bush lands by the QEII Trust was instigated and begun here. Natural remnants are increasingly being formally protected, and restored. Stream lengths previously grazed are being fenced and restored (attachments 29 – 31). The nature of the place is valued and of considerable community interest. The intricacy and complexity of the landscape has enabled a dispersal of small features across the farmlands. There is considerable pride in individual and collective community achievement across these private lands. A bottom-up approach is demonstrated and fiercely protected in preference to an interventionist approach.
101. Mr Lister previously identified that the local landscapes are *“important because of their meaning to the people of the district. They area a source of economic well-being; a reflection of the community and its history; a source of identity; a source of aesthetic enjoyment; and they have spiritual or contemplative values.”* My assessment supports this analysis.
102. Mr Lister identified in 2000 that the Waotu Precinct was a landscape of local interest. For *“the countryside surrounding Waotu”* he rated (page 33) the physical characteristics as moderate-high; the visual and perceptual values

as moderate; and, the meanings and associations as moderate-high. This analysis demonstrates that this place is not about just naturalness and visual absorption capability.

103. Mr Lister identified *“The area has picturesque aesthetics because of the intimate topographic scale, rolling pastoral landscape, prominent stands of bush and remnant trees, and rock outcrops.”* My attachments 16 to 25, 31, 35, 36 and App. A.2-3 demonstrate some of these features.
104. Mr Lister continued *“It is a good example of the landscape characteristic of the northern part of the district. Historical associations as a staging post etc. Traditional associations as a stronghold on the Waikato River and centre of pre-European settlement. High quality stands of native bush. Significance because of associations with the development of a conservation ethic relevant to farmland and open space. First Q.E.II national trust covenant reserve in the area – catalyst for several others.”*
105. The attitude to these lands cannot be gleaned by a drive by or a desk-top analysis. It is a landscape to get amidst to absorb the multi-layered meanings. The efforts of various peoples through various generations are known and valued. Planted trees have reached around 20 m. in height after several generations. This strongly contrasts with the structures more than twice the size now proposed to be ‘planted’ in these landscapes.
106. Mr Lister recognises (para. 413) the many small streams, distinctive ignimbrite outcrops and hummocky landforms that are the basis of this landscape. He assesses it as a fine scaled landscape with a moderately close settlement pattern (para. 416-7). Section 14 is a lived-in, producing landscape and not a more recent lifestyle-type place.
107. However many of these lands are dismissed by Mr Lister for their working character (para. 418), such as south of Waotu Road. Yet this area has important natural and cultural values. From the hill Papatangi, and from the Pikitu Marae below, these lands are over-viewed (attachments 30, 33). The area involves important areas of bush, such as the Jim Barnett Reserve

from which the route is over-viewed just 2 km west (attachment 26), as well as private covenants. The area is important in the local landscape. It is not just a work-place. Not just plain paddocks.

108. As recognised by Mr Lister in 2000, much of the area has long been deforested – “*at the time of European settlement there were extensive areas of fern and shrubland around Putaruru*”. Some 5000 people were reportedly based at an earlier time Maungatautari. Mr Lister noted only one area in the District for its stands of bush on private land, and that was the Waotu area (page 21). Private land protection here is known of nationally.
109. At para. 428 Mr Lister considers only the visibility of the lines from the marae just 1600 metres away. The landscape effects on this cultural landscape are not addressed. In 2000 Mr Lister noted (page 11) the historic concentration of occupation on the good soils of the Waotu district.
110. Mr Lister provided an overview of only the visual effects for section 14, considering the effects “very high” only where houses are almost beneath the lines (para. 430(a)), and “high” where houses are within 500 metres, and, orientated toward the line and not screened. Moderate effects were deduced when the lines were typically within a kilometre of a house, but might be considerably closer and screened.
111. However, in 2000 he had recommended landscape management to protect the characteristic elements that contribute to landscape quality, to promote a sense of stewardship to enhance the landscapes, and, to “*celebrate the qualities that make South Waikato’s landscapes distinctive and special.*” The intricate and multi-factor character of this landscape would be demeaned and dwarfed by the large structures proposed. Rather than celebrating the qualities, the structures would belittle them. The large structures would attract the eye and detract and distract from the myriad qualities and characteristics that distinguish the Arapuni – Te Waotu landscapes.
112. Addressing landscape change in 2000, Mr Lister identified that effects of buildings in the landscape would result from “*Breaking the line and form of*

landforms, especially where buildings appear on the skyline.” Attachments 9 to 25 show some local views. Tower outlines are overlain, with their location and height being approximate only. However in each, the proposed structures breach the skyline.

113. From my assessment I find that the effects summary provided in the evidence is inadequate for a number of reasons. It is only a visual effects analysis not a landscape effects analysis. It considers houses only and not the lands from which the landscape is otherwise enjoyed. The house effects assessment is only desktop and road-based.
114. This is a visibility assessment for houses, it is not addressing landscape effects in an holistic way¹⁰. Mr Lister recognises this distinction. The landscape effects were addressed as para. 417-419, and I have addressed the methodological problems, particularly the focus on effects on natural values. In the methodology, there is not adequate opportunity for valued dimensions of the “settled and modified” to be adequately recognised.
115. Addressing spiritual or contemplative landscape values, Mr Lister noted in 2000 (pp.22-3) that *“Landscapes often represent personal identity and orientation to the world. A distinctive landscape feature gains special value when a community personally identifies with it. There are no central landmark features that fulfill this role in South Waikato. Instead it is suggested there is an attachment to broad landscape patterns such as the bold forest landscapes and the intimate scale and picturesque qualities of the pastoral landscape.”* My assessment endorses this analysis. The Arapuni – Te Waotu landscapes demonstrate the intimate scale and picturesque qualities. I consider the Waotu area also demonstrates some important personal identity, centred on the individuals involved in early private land protection.
116. A methodological problem of the landscape quality assessment is evident in Mr Lister’s paragraph 419. The focus is on assessment against naturalness. Yet this can be considered a cultural heritage landscape. The settled and

¹⁰ Pacific Investment Trust v. Banks Peninsula District Council C 99/ para.

modified nature of this landscape enrich it with many layers of meaning and association. This will not “moderate” the effects of the line intruding through.

117. I thus consider the landscape and visual effects study does not adequately address Section 14 in that it focuses on only estimated visibility from the fronts of houses, and the disruption of natural values. This is inadequate for this long lived-in and intensively managed rural landscape that is rich with features and associations, and generations of effort. Unlike the rural landscapes to which Colin McCahon referred, this is not “*a landscape with too few lovers*”.
118. As Mr Lister identified in 2000, with regard to recreation, that “*Scenic driving is one of the principal ways people enjoy the landscape. There are no formal or recognised “scenic drives” in the district. However the network of minor roads through the intimate and picturesque landscape in the northern part of the district provide good opportunities.*” But the Te Waotu - Arapuni Heritage Trail is a marked driving trail approximately 50kms in total consisting of six sites and “*links the unique heritage resources of two areas of the South Waikato*”. The trail information suggests allowing 2-2½ hours, which includes a short stop at each site and a stroll through the Jim Barnett Reserve (attachment cover, view to the Jim Barnett Reserve, and attachment 26 a view from the Reserve).
119. Mr Lister also identified “*There are few formal rural walks in the district.*” “*However groups and individuals within the district also enjoy exploring the nooks and crannies of the surrounding countryside informally. This is evident from the detailed knowledge of places on private land within the district.*” My assessment supports this analysis. It cues to an important aspect of Arapuni to Tokapuhi area, that the rural landscape is enjoyed not just as a view from the road, not just as a view from the sitting room, and not just as a workplace environment, but also as a place of recreation.
120. My assessment confirms these recreational dimensions in the landscapes of Section 14, and that the amenity values in terms of these attributes will be variously and significantly affected by the proposed very large structures on, over and in the experiential realm of, these recreational resources.

121. The Little Waipa and other small streams of the area are a focus for activities in the local community (Appendix A.1). Activities include restoration plantings, family picnics, trout fishing, swimming, horse riding, and walking.
122. Considering Part II matters (particularly s6(f), s7(c), and s7(f)) the amenity landscape values, the heritage landscape values and the particular qualities of this environment have not been adequately addressed in the way the methodology has been refined and applied. Along with the statute, the South Waikato District plan specifically seeks that the amenity values be maintained and enhanced.
123. As I have found, and as previously identified by Mr Lister, the landscapes of Arapuni and through to Wiltsdown Road are highly valued and significant amenity landscapes.
124. As is recognised by Mr Lister and by Ms Allan, the imposition of the route would have significant adverse visual effects. The landscape effects of Section 14 will also be very significant on the Arapuni – Te Waotu landscape.

SECTION 15

125. From Wiltsdown Road, Section 15 is proposed to traverse south across the dissected ignimbrite plateau (Whakamaru Ignimbrite Land Type, landform component 1.1, attachment 3). This 30 km length was all forested when the transmission line planning was undertaken. Much has now been cleared, converted to dairying. As shown on attachment 4, within 5 years the length of the route proposed would be predominantly pastoral. The route will avoid most of the forestry that is to remain, and pass through only three small areas.
126. In the north, the route would encroach on some agricultural lands prior to entering the very extensive plantation and conversion lands. Off Wiltsdown Road, Mr Lister previously identified Nga Harore a Kapu as a “landscape of local significance”, and recorded a landmark rock Te Pare o Huia. I have not

as yet assessed the significance and potential effects on these features.

127. A vast landscape change is occurring. The very extensive plantation rotations that have occurred here since the 1930s is being brought to a hurried end for most of this length of the route. The landscape character is under transformation. The industrial-scale south is a very different landscape than that of the Arapuni – Te Waotū with its lived-in, fine-scale and heritage dairy character. The broad-scale change is occurring across an area that has had extensive and industrial land use patterning and little occupation.
128. Section 14 and Section 15 areas have had very different landscape character and association. The cobalt deficiency caused pastoral farming to fail and these lands were thus viewed as low value and most were forested (attachment 5, right, map). However the Te Waotū lands were not converted to forestry.
129. Mr Lister's previous assessment recognised this division, the "split personality" of the South Waikato District's landscapes: "*On the one hand it is associated with the soft rolling pastoral landscape in the northern part of the district... It has a nostalgic English character with large deciduous trees, hedgerows..... On the other, it is associated with production forestry ... more of a frontier or rough and ready image.*"
130. The Transpower assessment has largely assumed a forestry context, not an open pastoral context. The new landscape will have quite different values. As Mr Lister identified in 2000, large scale forestry masks landform features (page 43). "*Plantations can mask surface features, particularly the characteristic rock outcrops.*" With clearance, various landscape features will be revealed (attachment 32).
131. However for most of its length, Section 15 has not been a lived-in and loved place with multiple associations like the lands of Section 14. I am unaware of concentration of natural and cultural heritage features. Whilst the landscape absorption capability is likely to be much higher for the 'interior' of Section 15 than it is for Section 14, I note that in 2000 Mr Lister assessed

(page 21) that “*The forest plantations in the South Waikato are all established on an underlying topography with high intrinsic interest at a local scale.*” In addition, there are particular sensitivities at either end of Section 15.

132. The confined river corridor does have particular landscape values. The lakes’ landscapes have been recognised to have particular value. With the removal of the plantations, the visibility and accessibility to the river corridor may change.
133. As acknowledged in para. 614, Mr Lister’s assessment of the landscape effects (para. 438) does not allow for the extent of the land use change that is planned to occur across this plateau landscape (attachment 4). In contrast to that present in 2004, soon only relatively small areas of plantation are expected would be traversed.
134. Where the route encroaches on the river and lakes landscapes, attachment and associations as well as visual absorption need to be considered, as landscape and visual effects need to be addressed. Recreational values, including in relation to the yet to be completed Waikato River Trail, already highly valued at Lake Whakamaru, needs to be included in the assessment. Landforms experienced from and along the river corridor, including Whakamaru, Pohaturoa (attachment 5) and the columnar ignimbrite, contribute importantly to the natural character, and to landscape and visual values. Whilst particular views of features might not be disrupted by the proposed structures, they could detract significantly from the experience of the naturalness of the river corridor.
135. The river terraces to Whakamaru are being cleared (attachment 4). It is changing to an open river corridor. The landscape and visual effects of the greenfields proposal across the Whakamaru river corridor landscape would be significant.
136. Considering Mr Lister’s assessment of South Waikato Landscapes (2000), he sought to address the amenity and quality of the landscapes of the

District. He identified (page 17) “*The entrances from the west, from both Arapuni and Whakamaru, are strongly marked by crossing the Waikato River.*” Both of these key entrances are proposed to have the route cross the river corridor.

137. The Waikato River forms the crucial definition, attraction and focus for the south and west of the South Waikato District. Reduced natural character and reduced amenity value at each of these increasingly important western entrances would not assist in the maintenance and enhancement of the amenity values of this District. They will shortly be linked by the Waikato River Trail which will complement the water-based recreational attractions along the corridor.

TOWERS

138. I note that the Transpower comparative analysis¹¹ identified that “*The visual effect of the line is likely to be the most significant environmental impact to differentiate between the options.*” (page 10) The comparisons made were between typical “suspension” tower designs of the 44m high 350 kV Double bipole, and a 55m high 400 kV Double circuit. Thus an approximately 10 metre difference was noted as assessed (page 11), with an assumed maximum height being 55m. 85% of towers were expected to be these suspension towers, with 15% being of shorter and heavier “strain” towers where the route changes in direction.
139. Considering the line through South Waikato from the Arapuni Crossing down to Wiltsdown Road, involving 35 towers (320 to 354), in the plans for the NoR, 26 of the 35 towers are taller than 55 metres, with half of these over 60 metres tall. Several towers are around 65 metres high, and thus seemingly a further 10 metres taller than considered in the 2005 comparative analysis.
140. The landscape of Arapuni – Te Waotu – Tokapuni is small-scale. The topography is intimate, and the features are not large. The rolling

¹¹ “*Security of Supply into the Upper North island. Comparison of High Voltage Direct Current and High Voltage Alternating Current Grid Upgrade Alternatives*” Transpower. May 2005.

topography and features such as tors are of a much lesser scale. The rolling land surface and stream patterns provide the structure to the landscape. The natural patterns of the land form the dominant character. In this landscape, vegetation occurs as a particular concentration of fragments (attachment 30 shows only a few, see Transpower Part X. Section 10. Map 11. Land Cover). The strong cultural overlay of dispersed vegetation, roads and paddocks respond to this underlying natural patterning.

141. There are also a suite of specific natural and heritage features – historic buildings, graves (such as that of Clara Barnett the first school teacher of the native school at Te Waotu, attachments 30 & 33). There are several marae sites and the relationship from Pikitū at least to the broader context landscape is of importance.
142. With a linear arrangement and wires slung high between, the line would introduce a non-natural pattern across and through the landscape, unrelated to the specific and fine-grain nature and culture of this place.
143. Houses, sheds and whare are generally not large, and structures are generally less than 10 metres high. The trees seldom exceed 25 metres, and are mostly in clumps and lower. Trees, sheds, fences, stock and maize provide scale references in this agricultural landscape. The towers around 60 metres high would introduce a very different scale. Sight of towers through the lands would disrupt the relationship with these lands. The natural land pattern and the cultural overlay would both be belittled.
144. With the very large scale and linear arrangement contrasting with the picturesque land and features patterning, the aesthetic coherence would be significantly affected.
145. The classic rural landscape character that these landscapes epitomise would be disrupted and detracted from through being traversed by the collection of large unrelated structures. The line would read as an intruder in this heritage agricultural landscape.

146. For those living, working, belonging and recreating in this landscape, the sight of the large structures would significantly degrade the amenity values of this place.

CONCLUSIONS

147. From my assessment of the proposal through South Waikato, particularly from the Arapuni Crossing to Tokapuhi, Ms Allan's assessment (2nd brief, para. 246) that s.7(c) and 7(f) cannot be achieved is endorsed. There will be very significant adverse effects on the amenity values and the quality of the rural landscape through this complex and highly valued South Waikato landscape. She states that there are significant unavoidable visual effects with the overall overhead line.
148. The Easement Report describes (1.15.1.2) the difficulty of locating a route through this intensive and complex landscape. In my opinion the approach used for easement selection is not adequate. Not only are there significant effects on residential amenity within the proposed route, but there are also very significant effects on the fundamental experience of the natural, heritage and amenity values that constitute this distinctive rural landscape. The fine-scale landscape does not have the capability to absorb the proposed structures.
149. Ms Allan (2nd brief, para. 379) refers to the concerns expressed by the "visual assessor" regarding a paucity of maps and aerial photographs. Despite repeated requests I have had considerable difficulty navigating access to the background material.
150. Combining all assessment dimensions, Ms Allan concludes (2nd brief, para 397) that amenity values are not able to be maintained in visual terms. She does not address landscape effects. The visual and landscape effects on the lands and their peoples of Arapuni to Tokapuhi would be highly significant. The natural character, landscape, heritage and amenity values of Arapuni and the river corridor would be adversely affected.

151. As previously assessed by Mr Lister, the section 14 area is a “rolling landscape with characteristic rock outcrops, “tors” and conical hills. Land use has reinforced these patterns” with the intimate topography “enhanced by a close pattern of dairy farms with hedgerows, farmland tress, and stands of bush.”
152. For the South Waikato District Council, Mr Lister concluded just 8 years ago “there do not appear to be significant threats to landscape quality. The two main activities of forestry and dairy are well established and stable. There is little urban expansion, and limited pressure for rural subdivision. for these reasons the landscape in the district is likely to remain stable in the foreseeable future.” Following that analysis, it was agreed that rules to limit landscape change were not necessary or desirable, and that voluntary effort to maintain and enhance the landscape would instead be used.
153. Whilst Mr Lister assesses that the landscape and visual effects of the route will be significant, in my opinion the methodology and its implementation have failed to address particular landscape dimensions that when addressed show the highly significant effects of the route through the South Waikato District, particularly that from the proposed Arapuni Crossing of the Waikato River down to Wiltsdown Road.



Diane Jean Lucas

28 February 2008 (edited 14/3/08)

Appendix A Little Waipa – Kohatunui (4 pages, A4)

Appendix B Arapuni Gorge (3 pages, A4)

Attachments (36, A3 size, double-sided)