

BEFORE THE BOARD OF INQUIRY

In the Matter of

Resource Management Act 1991

And

In the Matter of

**of a Board of Inquiry appointed under
s 146 of the Resource Management
Act 1991 to consider an application
by Mighty River Power Limited for
resource consents to construct and
operate a wind farm at Turitea.**

**LEGAL SUBMISSIONS ON BEHALF OF
TARARUA- AKOAUTERE GUARDIAN'S & FRIENDS OF TURITEA RESERVE INC**

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MAY IT PLEASE THE BOARD

INTRODUCTION

1. I represent the collective case of Tararua – Aokautere Guardians Incorporated (“TAG”) and Friends of Turitea Reserve Incorporated (“FOTR”) (collectively referred to as “TAG and Friends) who have collaborated to present the community case to the Board of inquiry.

Tararua- Aokautere Guardians Incorporated

2. TAG was formed in 2004 and consists of a group of affected residents, including residents of the wider Manawatu and Tararua regions that are concerned about various environmental issues associated with wind farms including the adverse effects of wind farm’s on natural landscape, and upon people and communities.
3. TAG has a membership of 186 the group has worked effectively in the role of community advocate, successfully presenting the ‘community’ case in the consent process for three other wind farms in the area, *Tararua III* (Trust power), *Te Rere Hau* (NZ Wind farms Limited) and *Motorimu* (Motorimu Wind Farm Limited).

Friends of Turitea Reserve

4. FOTR is a group from the wider Manawatu, Tararua and Horowhenua regions who are concerned about the various ecological and environmental issues associated with the Turitea Reserve and surrounding environs (“the reserve”), including the adverse effects of any wind farms or other such industrialization on native ecosystems and natural landscape, and also upon people and communities including their recreational amenity values.
5. FOTR was formed in 2006 amid rising concern from the lack of transparency in the public consultation process surrounding the legality of the Palmerston North City Council’s (“PNCC”) proposal to change the purpose for which the

reserve was held and to permit use of the reserve for renewable electricity generation.

THE APPLICATION

6. This inquiry is in respect of a resource consent application by Mighty River Power Limited ("the applicant" "MRP") to develop, construct and operate the 'Turitea' wind farm. The proposal was originally to consist of a maximum of 131 turbines on the Tararua Ranges, near Palmerston North. Late last year at the direction of the Board the applicant undertook a re-design of the proposal. Consent is now sought for a reduced proposal consisting of up to 104 number of turbines.
7. The proposed Turitea Wind Farm site is located approximately 7.5 kilometres to the south-east of Palmerston North CBD along ridgelines of the northern Tararua Ranges. The Wind Farm Site extends from Pahiatua-Aokautere Road in the north to the boundary with Harding's Park in the south, and foothills to the West, covering a length of approximately 16 km, with over 50 turbines on the main ridgeline.
8. The proposed wind farm will be highly visible from many suburban residential and public areas including Palmerston North City; it is located in close proximity to a large population. It is likely that the proposed wind farm will affect the visual amenity of a large number of the 100,000 people live on or around the Manawatu Plain's with a constant view of the Ranges; Approximately 2,229 people will be living within the 35dBA noise contour level and are likely to experience adverse noise effects as a result. 61 turbines will also be located within the Turitea Reserve (which includes the Turitea Water Catchment area) and to Harding's Park, an area of significant ecological value which also provides numerous recreational opportunities and views of the native flora and fauna.

Outline of submission

9. TAG/ Friends are opposed to the application and ask that it be declined in its entirety. This is the only action that can sufficiently protect the remaining

undeveloped area of the Tararua Ranges and the Turitea Reserve in their current, natural, state for the enjoyment of future generations.

10. TAG/ Friends argument is centred on the following key issues;
- (a) The inappropriateness of the proposed wind farm, because it is in an area which TAG/Friends will establish is, or is part of, an outstanding natural landscape, or which is an outstanding natural feature (under s6(b) of the Resource Management Act 1991); and
 - (b) The inappropriateness given the adverse combined/cumulative effects of the proposed wind farm and the surrounding operational and consented wind farms in the vicinity;
 - (c) The unprecedented closeness of the wind farm site to Palmerston North's large residential/urban population.
 - (d) The application will result in significant loss of amenity values which cannot be avoided remedied or mitigated in particular; the application:
 - (e) Fails to protect the health and well being of residents from the adverse noise effects.
 - (f) Will result in significant adverse landscape and visual effects.
 - (g) Is inappropriate due to the severe impact that it has on recreational amenity values.
 - (h) Will adversely affecting community growth, wellbeing and the lifestyle of residents;
 - (i) Fails to protect areas of significant indigenous vegetation and significant habitats of indigenous flora and fauna;
 - (j) The adverse ecological effects of the proposal will result in irreparable damage to significant indigenous vegetation and threatened ecosystems;

11. It is noted that TAG/Friends adopt and defer to the evidence and submissions of Huatau Marae in respect of cultural and traffic aspects of the application.
12. TAG/Friends ask that the application be declined in its entirety. This is the only action that can sufficiently protect the Palmerston North community who stand to be adversely affected by the wind farm.
13. Declining consent is also the only way to preserve public (including recreational) amenity values, in a region where many areas have already been severely derogated due to the construction of wind farms. This will ensure the remaining skyline (a recognised and valued ONF) and rare and indigenous flora and fauna of high conservation value will be preserved in their current, natural, state for future generations to experience.

THE REDESIGN

14. TAG/Friends welcomed the redesign to enable the applicant to address the issues that arose prior to the adjournment, despite the fact that it meant incurring more costs. TAG/Friends members have volunteered additional hours and incurred significant additional expense to engage experts to assess and respond to the re-design, in the belief that it was important to get this right.
15. TAG/ Friends case has not changed over the course of this Inquiry. The evidence that TAG/friends relied on in support of their concerns was outlined in their expert evidence filed in May 2009. Despite receiving this information, the Applicant opted to proceed with the hearing commencing in July 2009.
16. In seeking to revise its design it was believed that MRP would try to address these concerns. It is acknowledged that to avoid the need for an entirely new application, the re-design needed to occur within the constraints of the initial application (See *Darroch v Whangarei DC* Decision No. A018/93 and *Shell NZ Ltd v Porirua City Council & Ors* CA 57/05). However, TAG/ Friends like many submitters were disillusioned by statements from the applicant which clearly stated that the re-design process would actively seek to engage with

submitters and their experts in an attempt to alleviate their concerns. This did not occur.

17. None of TAG/ Friends experts were contacted by the applicant to discuss the re-design, nor did the applicant seek to actively engage with them, despite their role as community advocates. Of note is the applicant's failure to consult with TAG/Friends landscape experts regarding the new layout despite the emphasis on alleviating visual amenity and effects on naturalness as key factors in determining the revised layout.

CONSULTATION

18. The community consultation that did occur was selective and limited, in that it failed to provide those consulted with adequate information about the re-design to enable full participation in the process. The applicant's attempts at "consultation" can best be described as "lip-service," with those attending describing that they were "told" rather than "consulted". You have heard from Dr Cookson and Mr Low as to the difficulties their groups have had in dealing with the applicant.
19. TAG/Friends are disappointed that the applicant has failed to take full advantage of the opportunity to re-design. Half of the relocated turbines were moved within the initial project envelope; unsurprisingly by moving turbines 300 metres or less, MRP has failed to respond to the majority of the concerns raised last year. In TAG/ Friends view the applicant was generously awarded a second opportunity to get this right and has blown it.

COMMUNITY SUPPORT

20. The applicant has made various claims throughout the hearing process concerning the "high level" of community support for the project. These are considered to be highly inaccurate.
21. Prior to the adjournment MRP cited a survey which was conducted indicating considerable community support for the Turitea proposal. TAG/Friends have

repetitively sought the details of this survey, including details of the questions asked and answers received but the applicant failed to provide them.

22. TAG/Friends have received detailed reports from members who unknowingly participated in the survey who have stated that the questions asked were about wind power generally, it was not disclosed that the survey was commissioned by MRP or that it was in relation to the *Turitea* wind farm. Because of this lack of transparency in forecasting community views it is submitted that the results of this survey are not reflective of community views and should be given no weight.
23. The applicant has also inferred that the lack of community submissions on the redesign is indicative that the majority of the community who initially submitted are no longer opposed to the redesign and that it has alleviated their concerns or accepted the mitigation proposed. This is entirely incorrect, in fact the opposite applies. Lack of submissions on this re-design is likely to be because all submitters (including TAG/Friends) received an email from the Ministry instructing that if your previous concerns been *had not been addressed by the redesign* there was no need to re-submit as your initial submission would still be considered by the Board.

LANDSCAPE

Outstanding Natural Landscapes/ Features s 6(b) of the RMA

24. The RMA has specifically provided for recognition and protection of nationally important features and landscapes in section 6(b), which states that:

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (b) *the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.*

“Outstanding”

25. It is clear a certain level of significance is required of a landscape before it can be said to be “outstanding” for the purposes of section 6(b).
26. In *Arrigato Investments* the Environment Court considered at paragraph [75]:

“Outstanding” is defined in the Concise Oxford Dictionary as “conspicuous, eminent, esp. because of excellence”. The word is an adjective of some considerable strength...

“Natural”

27. It is accepted that to qualify under section 6(b) a landscape must not only be outstanding; it must also be “natural”.
28. In the first *Wakatipu* decision the Court noted (paragraph 89) that the criteria of naturalness under the RMA include:
- (a) The physical landform and relief
 - (b) The landscape being uncluttered by structures and/or “obvious” human influence
 - (c) The presence of water (lakes, rivers, seas)
 - (d) The vegetation (especially native vegetation) and other ecological patterns
25. In *Pigeon Bay Aquaculture v Canterbury Regional Council* [1999] NZRMA 209 at 231-232 (paragraph 56) the Court identified a number of aspects as relevant to assessment of landscape significance.
26. In *Wakatipu Environmental Society Incorporated v Queenstown Lakes District Council* [2000] NZRMA 59 (“the first *Wakatipu* decision”) the Court stated

(paragraph 74) that a precise definition of “*landscape*” cannot be given. It went on to note three ways of perceiving landscape as follows:

- i ...as a large subset of the ‘environment’ (paragraph 77);
- ii ...as a link between individual (natural and physical) resources and the environment as a whole. It is a link in two ways: first in that it considers a group of natural and physical resources together, perhaps in an arbitrary cultural lumping as a “landscape” rather than in any ecologically significant way; and secondly it emphasizes that our attitudes to those resources are affected by social, aesthetic and cultural conditions.” (paragraph 78);
- iii under the *Pigeon Bay* assessment criteria.

27. The Court accepted the *Pigeon Bay* criteria were generally appropriate but made several changes. The criteria (as amended) are familiar to this board. They include, but are not limited to (referred to in the remainder of this submission as “the amended *Pigeon Bay* criteria”):

- (a) The natural science factors – geological, topographical, ecological, and dynamic components of the landscape;
- (b) Its aesthetic values, including memorability and naturalness;
- (c) Its expressiveness (legibility) – how obviously the landscape demonstrates the formative processes leading to it;
- (d) Transient values – occasional presence of wildlife or its values at certain times of the day or year
- (e) Whether the values are shared and recognised
- (f) Its value to tangata whenua
- (g) Its historical associations.

As the Court observed in *Wakatipu* that (a) and (d) correspond to what is seen or perceived; and (b) (c) and (e) to (g) to how people perceive the landscape.

28. TAG/ Friends consider that the area from the skyline to the upper lands of the ranges incorporating the areas of Turitea Reserve and Harding's Park and linking with Tararua Forest Park are outstanding natural landscapes of national importance worthy of protection under section 6(b).

Planning documents

29. The relevant policies and objectives contained in the relevant plans will be familiar to you. Detailed discussion of this is contained in TAG/ Friends landscape representation and the evidence of Ms Lucas and Mr Bray.
30. While the Upper Range area is not identified as an ONL, the relevant planning documents provide considerable support for this proposition. The Tararua and PNC District Plans, Manawatu-Wanganui RPS and the proposed ONE plan all identify the Tararua Ranges and the *skyline* of the ranges as being regionally significant
31. Considerable attention has been devoted to defining the area of the skyline for the purposes of this application. This was considered in detail by the Court in *Motorimu*, which rejected the argument that the *skyline* for s 6(b) purposes included the ridges of the lower foothills noting at [118] that:

The outstanding natural feature which objective 8 and policy 8.3 seek to protect is the *very highest skyline of the Tararua Ranges not the foothills skyline containing the Motorimu site.*

32. Unlike that case, the *Turitea* application does seek to locate turbines on the "spine." or the "*very highest skyline*" of the Tararua's which the Court in *Motorimu* recognised to be an ONF.
33. While the provisional decision of the proposed ONE plan carries little or no weight, it should be noted that it employs a wider definition of "skyline," '*as the*

boundary between the land and sky as viewed at a sufficient distance from the foothills so as to see the contrast between the sky and the solid nature of the land at the crest of the highest points along ridges.' The definition also specifically includes the skyline situated outside the forest parks. Both definitions support Ms Lucas's identification of the skyline area of the proposed site as being outstanding.

Non-identification in planning instruments

34. Turitea Reserve and Harding's Park are both in the plans for their recreational and conservational value as Reserve and Park lands (and protected and managed as such), they are not identified in the plans as ONL or ONF.
35. It is well established that the non-inclusion of an area in planning documents does not preclude the Board from either from finding as a fact that the site is within an ONL, is an ONL/F or is adjacent to an ONL/F in terms of Part II, or from considering that in its assessment of environmental effects. That approach was confirmed by the High Court in *Chance Bay Marine Farms v Marlborough District Council* [2000] NZRMA 3 and in *Outstanding Landscape Protection Society v Hastings DC, (Unison No 2)* and Justice Potter in the High Court.

Expert Evidence

36. Ms Lucas has assessed the area in conjunction with the modified Pigeon Bay criteria and considers that the upper lands of the Tararua Ranges are outstanding. She includes the Tararua Forest Park (a recognised ONL), the Skyline of the Ranges (a recognised ONF) Turitea Reserve and Harding's Park area (adjacent to the proposal) should all be classified as outstanding.
37. In response to cross examination and questioning from the Board, Bray, Anstey and Brown have all indicated general agreement with Ms Lucas's classification in most respects.

Harding's Park –ONL?

38. In support of her assessment of this areas as ONL under the modified *Pigeon Bay* criteria Ms Lucas identifies the following characteristics:
- (i) The highly natural environment, its beauty, high level of indigenous vegetation and its significant conservation value;
 - (ii) Recognising the views within and outside its boundaries and to the adjoining protected lands in Turitea Reserve. For example, enjoyment of the views in the walk up onto Red Rock Knob on the Tararua watershed and the experience of Toi Toi flats;
 - (iii) How the highest ridges of the Reserve and Park contribute to the skyline (as per Ms Lucas's attachment 28B);

Turitea Reserve-ONL?

39. In respect of her classification of all of Turitea Reserve as being ONL Ms Lucas considers the very high level of naturalness which in places is close to pristine; the beauty; views within the Reserve and to Harding's Park; the existence of indigenous vegetation and the high conservational and ecological value of the Reserve.
40. Unlike the other experts, she also considers the implications of the legal status of the Reserve' classification for scenic and conservational values under the Reserves Act 1977. This is legislative mechanism to preserve valued or special landscapes. She notes that the proposed development is inconsistent with both the purpose of the Act and the statutory requirement under s19 (2)(c) "*that the natural environment and beauty shall as far as possible be preserved.*"

Unresolved landscape issues

41. The main unresolved landscape issue for the Board to consider is firstly whether or not all of Turitea Reserve and Harding's Park should be classified as ONL (as per Ms Lucas's, view) or, whether some of the areas are of such

diminished naturalness that they do not qualify as ONL and should be treated as amenity landscapes (as contended by Brown, Mr Anstey and Wyatt,).

42. The board must also consider whether the proposed wind farm constitutes an "inappropriate use" of these areas in terms of s 6(b).
43. Mr Brown, Anstey and Bray have all reconciled from their original classification of Harding's Park and Turitea Reserve as high amenity landscape. Mr Brown now considers Harding's Park to be, "the beginning of a very extensive ONL," which includes Tararua Forest Park.
44. It is noted that the applicant has failed to undertake an assessment as to the potential adverse effects of the proposal on Harding's Park as a neighbouring ONL in respect of s 6(b).
45. While Messer's Brown and Bray, do accept that large parts of the Reserve would qualify as ONL, they considered that when looking onto Turitea Reserve and Harding Park there are transitional areas towards the north which have been significantly modified due to the use of those areas for pastoral activities and productive forestry. This fails to appreciate the naturalness perceived from within the reserve.
46. Because of this perceived loss of naturalness Messer Wyatt, Brown, (and to a lesser extent Bray) Do not agree that these derogated areas should be included in the classification of ONL and instead categorise them as high amenity landscapes.

Turitea Reserve

47. In relation to the Turitea reserve Mr Browns definition of *amenity* may be inappropriate, given the fact that the area is *inaccessible to the public*, adjacent to the Tararua Forest Park and contains bush clad summit of the Tararua Ranges. Ms Lucas notes that these factors all negate the classification of this area as amenity landscape.

Inappropriate

48. It is acknowledged that section 6(b) does not protect outstanding landscapes from all subdivision, use and development but only from that which is inappropriate. In *Richard Henry Estate Limited v Southland DC* EnvC C22/2003, 60 the Court held that development becomes inappropriate only 'when it diminishes in any significant way the outstanding natural landscape or the reasonable person's perception of it.'

49. In *Gannet Beach Adventures Ltd v Hastings DC* [2005] NZRMA 311 (The *Cape Kidnappers* Decision) the Court at paragraph [61] noted that:

the question isn't whether the development might be visible at all, but rather whether its visible presence, including all mitigation measures, would lower, to a lesser desirable level, the qualities that make this feature outstanding. If the answer to that question is positive, then the effects are both adverse and more than minor.

50. Ms Lucas has undertaken an assessment of the proposal on Harding's Park and has concluded that the impact will be significant. Turbine groups G and part of Group F that border the park will significantly impact:

- (i) Natural values and experiences within the natural landscape in particular the experience of Red Rock Knob and Toi Toi Flats.
- (ii) The values of the Reserve and the perception of naturalness of the area.
- (iii) Location of the turbines between Turitea Reserve and Harding's Park have the effect of dissecting Turitea Reserve from Harding's Park and significantly affect the views between the Reserve and Park.
- (iv) The skyline ONL. She considers that the intrusion of large structures on the ridgelines into the sky-scape of the range (in particular the large number of turbines situated on the main ridgeline) would detract from the experience of the range lands as a landscape feature.

- (v) How from the Palmerston North City and foothill areas the detail, complexity and subtleties of the various peaks would lose their appeal due to the presence of a moving industrialised turbines on the skyline. The ascetic value of the Tararua Range ONL, in particular the naturalness and memorability of the Ranges would be significantly affected by the proposal and that it constitutes inappropriate use and development of the ridgeline.
51. Ms Lucas concludes that the proposed wind farm is inappropriate as it will significantly diminish the “outstanding” or “natural” character of the Upper Tararua Ranges, in particular the highly valued skyline, Turitea Reserve and Harding’s Park landscapes, and the reasonable person’s perception of them. On the basis of Ms Lucas’s evidence, TAG/ Friends submit that the proposal constitutes an inappropriate use and development in terms of s 6(b) and should be afforded the protection afforded by that section.

Overstatement of modifications

52. Mr Brown, Wyatt, Anstey and Bray’s conclusion that irrespective of the adverse effects on the ONL that all (or some) development is appropriate(albeit in considerably differing scales) is permissible. While they differ considerably as to the number of turbines they find acceptable all conclude *that in some form* the wind farm is *not inappropriate* in terms of s6 (b).
53. This view is heavily reliant on emphasising the derogation of naturalness ‘on the ground’ of the proposal site and its environs including the small portion of fragmented areas of exotic forestry toward the northern end of the Park and Reserve. Despite the fact that many of these modifications of the site itself are not apparent or even visible from the many views identified and discussed.
54. This over emphasis on derogation/naturalness within the immediate and surrounding landscapes as a result of the clearing of indigenous vegetation, forests and modifications to the landscape by way of pastoral farming

activities on or near the proposed site detracts from the wider impression of the landscape as being overall natural.

55. This approach results in an artificial distinction, which the applicant uses to disassociate the wind farm site from the wider landscape and therefore downplaying the visual impact that the wind farm will have on these ONFL. The Court in the *Lammermoor* decision *Maniototo Environmental Society & Others v Central Otago DC and Others* Decision No. C103/2009 (currently under appeal) found that Mr Brown (also giving evidence on behalf of the applicant in that case) noting at paragraph [325] that:

While we accept all the signs of human involvement on the meridian site and surrounding area described by Meridian's witnesses, we have found them to be overstated[.] The Lammermoor is, objectively examined, a remarkable natural area within a large homogenous area generally of higher quality. So we consider that Meridian's witnesses and counsel have exaggerated the relatively small scale differences.

56. Classification of the proposed site (and adjacent area's) by listing the modifications or suggested areas of derogation, fails to acknowledge the role of the proposed site within the context of the wider landscape and the intervisibility of these features within the district. Because of this the evidence of Ms Lucas is considered preferable over that of Mr Brown.
57. Ms Lucas's view is supported by the Court in *Wakatipu* (*above*) the Court noted the important contribution of a particular landscape element to part of a wider outstanding landscape was noted in). The Court noted at paragraph 59:

When considering the issue of outstanding natural landscapes we must bear in mind that some hillsides, faces and foregrounds are not in themselves outstanding natural features or landscapes, but looked at as a whole together with other features that are, they become part of a whole that is greater than the sum of its parts. To individual landowners who look at their house, pasture, shelterbelts and sheds

and cannot believe that their land is outstanding natural landscape we point out that the land is part of an outstanding natural landscape and questions of the wide context and of scale need to be considered. The answer to the question where the outstanding natural landscapes and features end is not a technical one. It is a robust practical decision based on the importance of foregrounds in (views of) landscapes. We do not consider this over-emphasises the pictorial aspects of landscape, merely uses them as a determinative tool."

58. The Court accepted that an area that is not outstanding in itself can contribute and be part of a wider outstanding landscape. It is implicit, that where this occurs some derogation of naturalness in the contributing areas is tolerated
59. This is consistent with the criteria of naturalness which was extended by the Court in *Long-Bay-Okura Great Park Society v North Shore City Council* A078/2008, paragraph 135 to include:

'Relatively unmodified and legible physical landform and relief;'

60. The applicant's incorrect assumption that exotic plantings within a landscape and pasture prevent it from being classified as an ONL and are suggestive of an amenity landscape appears to be based on a flawed interpretation of the modified Pigeon Bay criteria in this regard.
61. This is supported by the Court in *Unison Networks Ltd v Hastings DC* Environment Court W011/09, 23 February 2009 Bollard J and in *Long bay – Okura Great Park Society Incorporated v North Shore City Council* (Decision No. A78/2008) Judge Jackson (presiding), have both considered the meaning of "naturalness" and confirmed the interpretation of the Planning Tribunal in *Harrison v Tasman District Council* [1994] NZRMA 193 at paragraph [135]:

'The word "natural" does not necessarily equate to the word "pristine" except in so far as landscape in a pristine state is probably rarer and of more value than landscape in a natural state. The word "natural" is a word indicating a product of nature and can include such things as

pasture, exotic tree species (pine) wildlife [...] and many other things of that ilk as opposed to manmade structures, roads, machinery.'

62. It later noted:

'There is a spectrum of naturalness from a pristine to a city scape and a "cultured landscape" may still be an outstanding natural landscape.'

63. It is submitted on this basis that the small areas of modified /less natural landscapes within Turitea Reserve and Harding's Park and those areas that do form part of the skyline do not prevent their classification as ONL/ONF or prevent development from being considered inappropriate in these areas.

ECOLOGY

64. The redesign indicates that 61 turbines will be situated in the Turitea Reserve. A further 30 will be sited in or in close proximity to, indigenous vegetation. Overall 25 ha of indigenous vegetation will need to be cleared to facilitate the wind farm resulting in considerable effects. Of that cleared only 8 ha will be available for regeneration; however this cannot be assumed to be permanent and will be planting on highly disturbed ground rather than natural regeneration per se.

Section 6(c) & (f)

65. Section 6(c) requires the Board to recognise and provide for *'the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;'* as matter of national significance, while 7(d) requires you to have regard to *'the intrinsic value of ecosystems.'*

66. Ms Gabites has evaluated the indigenous flora and fauna of the proposal site, in particular the Turitea Reserve in relation to the relevant policies and objectives of the plans including objective 9 of the RPS which is to *'protect areas of significant vegetation and significant habitats of indigenous fauna,'* and found that the application is contrary to them. The Environment Court has

noted in *Minister of Conservation v Hutt CC EnvC W013/03* that a local authority is under a statutory obligation to take appropriate steps to ensure the protection of the specified values, areas of significant indigenous flora and fauna and significant habitats of flora. The proposal is considered contrary to this.

67. Ms Gabites has assessed the commonly used criteria to assess 'significance' outlined in *Minister of Conservation v Western Bay of Plenty DC EnvC A07/01*:

- a. Representativeness (extent of range of genetic and ecological diversity);
- b. Diversity and pattern (in relation to ecosystems, species and landforms);
- c. Rarity factors/ special features;
- d. Naturalness/ intactness; size and shape (affecting the long term viability of the species, communities and ecosystems, and amount of biodiversity);
- e. Inherent ecological viability/ long term sustainability;
- h. Relationship between natural areas and other areas of mere modified character; and
- i. Vulnerability of the site; management input required to maintain or enhance an area's significance.

68. Ms Gabites has examined the application in relation to these criteria, and ss6(c) and 7 (d) and has concluded that the indigenous vegetation and flora and fauna (especially that of Turitea Reserve) is over and above the level of significance which triggers protection noting that they are of "greatest significance" and "highly significant" Ms Gabites is of the opinion that:

- a. Turitea Reserve is biographically distinct and important containing 90% of Palmerston North city's indigenous vegetation;
 - b. The Turitea Reserve displays a high level of ecosystem integrity, including old ecosystems and provides a seamless ecological gradient to high altitude;
 - c. The Reserve's status under the Reserve's Act 1977 is indicative of its national significance; it displays both high ecological significance and wildlife habitat value.
 - d. The Reserve supports successional indigenous vegetation, which is still predominantly natural in character; and
 - e. Turitea and adjacent DoC land support several of New Zealand's endangered species including breeding populations of Falcon *Brachyglottis kirkii* and of *kaka* as well as species only recently removed from the 'threatened' or 'at risk' categories such as *kereru* and *Raukaua edgerleyii*.
 - f. The 50 year protection period of the Reserve provides an enormously important, unique and valuable scientific and educational resource.
69. TAG/ Friends are of the view that the application will result in permanent net loss of significant vegetation, soils and habitats for indigenous fauna and flora that cannot be mitigated or reconstructed.
70. TAG/Friends adopts the evidence of Dr Rapson (where it is consistent with Ms Gabites) in this regard who notes that re-establishment of the Horipito shrub canopy may "take centuries," and that some species are located only along the ridgeline, meaning that clearance of these areas to facilitate the

wind farm may result in the complete loss of these species from the Reserve, which is in Dr Rapson's view, "an unacceptable loss of biodiversity." The loss of wildlife from the Reserve as a result of the development of the wind farm may be irreversible.

71. Ms Gabites is particularly critical of the applicant's inadequate field work and simplistic assessment of the potential adverse effects on bird behaviour, in particular on keystone and threatened species including the falcon present within the reserve. Both Ms Gabites and Dr Rapson are highly critical of the applicant's simplistic assessment of adverse effects especially in regard to mature indigenous canopies, bird flight and rejuvenation. For these reasons evidence which is based largely on local experience and observation, such as that of Ms Gabites and Dr Rapson is preferable over that of the applicant.

72. Ms Gabites concludes that:

I am opposed to any development (Road widening, new roads, turbines laydown pads and pylons) with native vegetation in Turitea Reserve, or turbines in close proximity to likely kereru and tui habitat.

The redesign has done nothing to avoid the effects in the reserve; in fact it the effect of moving 17 turbines closer to indigenous forest; this can adversely affect the canopy increasing the risk to birds.

Mitigation Measures & adaptive Management

74. Ms Gabites and Dr Rapson are of the view that the mitigation measures proposed by the applicant are grossly inadequate and assumption of success rates exaggerated. They note that some of the mitigation measures proposed expose the existing ecosystems to severe risks as a result of the introduction of exotic species and may stimulate weed growth resulting in further degradation and irreparable harm to the old indigenous eco-systems and wild life they support. Dr Rapson is sceptical of the applicants reported transfer trials, noting that the plants used were not sourced from the reserve

and noted the low survival rates and adverse effects observed in similar trials. This is illustrated in the photographs contained in the EIC of Dr Rapson.

75. The applicant places considerable reliance on adaptive management as a method of mitigating adverse effects on wildlife. This reliance is misconceived. Adaptive management is a legitimate technique in some circumstances, but is inappropriate where the effects are irreversible and potentially significant.
76. In her evidence in chief Ms Gabites and Dr Rapson outline the uncertainties associated with the regeneration of the ecosystems within the reserve, inherent fragility, slow regeneration rates and low success rates in re-planting and transferring natives and high risk of failure and creating further harm to ecosystems as a result of the introduction of exotic species and weeds concluding that the Reserve is unable to withstand the “adaptive management approach” advocated by the applicant to mitigate the adverse ecological effects of the development. Dr Rapson aptly sums the position stating that the applicant is “experimenting with transfer techniques, which are at the best, hopeful rather than assured.”
77. Ms Gabites is particularly critical of the unsuitability of “adaptive management” as a tool to protect the New Zealand Falcon breeding within the reserve noting that the applicant has developed its mitigation strategies in reliance on evidence which does not take into account the behavioural characteristics of falcon within geographical and vegetative areas similar to Turitea Reserve. The considerable physical difficulty in recording bird strike within a heavily vegetated environment also limits the effectiveness of a monitoring-based feedback mechanism.
78. There is insufficient evidence that the adaptive management response proposed by the applicant will adequately avoid, remedy or mitigate potential adverse effects. In fact both Dr Rapson and Ms Gabites are of the opinion that these activities have the potential to cause further harm.
79. The appropriateness of adaptive management as a tool to manage risks was discussed by Young J in *Minister for Conservation v Tasman District Council*,

HC Nelson CIV-2003-485-1072 (9 December 2003) who noted that, (at paragraph [11]) that:

Adaptive management is a precautionary approach for managing risks. It is a policy response to potential adverse effects which are unable to be assessed by considering the primary or adjudicative facts.

80. However, the Environment Court in *Clifford Bay Marine Farms Limited v Marlborough District Council C131/03* acknowledged that there are some situations where adaptive management is insufficient precaution in itself and made the following comments about what conditions must achieve in order to for adaptive management to be an appropriate (at paragraph [118]):

The applicant has proposed conditions of consent which involve staged development and monitoring. To this extent they have acknowledged at least the possibility that effects might follow which require avoidance, remedying or mitigation. The case must therefore turn on whether the conditions proposed, in particular the monitoring regime and adaptive management strategy can first detect and secondly remedy any effects that might arise before they become irreversible.

81. The concept of adaptive management has emerged as an alternative way of managing uncertainty. Put simply, it is an experimental approach to management – learning by doing. It is not to be used as an excuse to avoid a full and complete assessment of the effects of the ecological effects of the proposal as in the current case.
82. Mighty River Power began work on its *Turitea* wind farm project in 2005. In my submission, it has had access to the Reserve and ample opportunity over the past five years to conduct the baseline survey work to enable it to commit to a comprehensive set of ecological conditions, or identify matters that are so uncertain as to be best dealt with post consent.

83. The authorities examined above indicate that adaptive management should only be implemented if there is a high level of confidence that:
- i. quantifiable triggers of adverse effects can be set;
 - ii. Such adverse effects are reversible;
 - iii. Mitigation of adverse effects can be implemented quickly;
 - iv. Mitigation is guaranteed to be effective;
 - v. If necessary, the extent of the development can be cut back.

In TAG/Friends view examination of the evidence in the current application illustrates that does not meet the criteria where adaptive management is warranted, or even permissible.

84. The high level of uncertainty surrounding the resilience of the Reserve precludes the setting of quantifiable triggers, due to the fragility of the ecosystems and rarity of the species. You have heard evidence from Ms Gabites and Dr Rapson that some of the adverse effects of the proposal are irreparable and irreversible. Nor is there a guarantee that the mitigation measures proposed especially in so far as the falcon and threatened indigenous vegetation will be effective (in fact, the evidence suggests that there is a high likelihood that they will be ineffective) and will result in more harm than good.
85. It is therefore submitted that the adaptive management approach is inappropriate, and that the adverse effects of the application cannot be avoided remedied or mitigated.
86. It should be noted that when considering s 6 (c) that protection is the imperative element of this provision and not whether it is inappropriate. (*Royal Forest and Bird Protection Society of NZ v Manawatu –Wanganui RC* [1996] NZRMA PT),. In this respect it is noted that “protection” means keeping safe from injury or harm, not absolute protection, prevention or prohibition. *Auckland Volcanic Cones Society v Transit New Zealand Limited* [2003] 2 NZRMA 54. Therefore you need to decide whether the application can

adequately avoid remedy or mitigate the adverse effects of the proposal so to adequately protect the ecological values identified.

87. In *Royal Forrest and Bird Society Inc v Buller CC* [2006] NZRMA 193 (HC) The High Court considered the approach to be taken where ecological values of national importance were at stake (indigenous fauna (*Powelliphanta patrickensis*, the endangered gaint snail, and its habitat and the kiwi)). The High Court confirmed that when considering these matters a flexible approach to the civil standard of proof was required, taking into account the relative seriousness of the consequences of the activity of coal mining, and the chances of successful mitigation measures (large-scale movement of habitat and fauna) in deciding whether the risk was proved on the balance of probabilities.
88. It is submitted that given the seriousness of the consequences, the potential loss of breeding falcons and loss of other highly significant and threatened species to the region, the uncertainties associated with how the ecosystems in the Reserve will react to the changes, the inappropriateness of adaptive management and the difficulties associated with mitigation, that the assessment of risk on the balance of probabilities favours protecting the reserve in its current natural state as a matter of national importance.

WATER CATCHMENT

89. TAG/ Friends also considers that the proposal is inconsistent with s 6(a) to recognise and provide for the preservation of the natural character of rivers and streams and the intrinsic values of ecosystems in s 7(d). Dr Joy and Dr Coffey have considerable unresolved concerns surrounding sediment and water quality of the significant Kahuterawa Stream and in their opinion the proposal does not do enough to ensure that the severe adverse effects of sediment on water quality and aquatic ecosystems are avoided especially in heavy rainfall events. The siting of turbines 57 and 66 within the water catchment area and associated works is also of concern.

Adverse effects on amenity values

90. The Resource Management Act also makes provision for consideration of amenity values. Section 7(c) states:
91. *"In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to-*
- (c) *The maintenance and enhancement of amenity values*
-
- (f) *The maintenance and enhancement of the quality of the environment.'*
92. The phrase 'amenity values' is further defined by the RMA as being:
- "Those natural or physical qualities or characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes".*
93. Judge Dwyer in the *Motorimu* decision at paragraph [200], described the appropriate approach to 7(c) as:
- "The focus of consideration of amenity effects in this case is how the wind farm might affect people's appreciation of their environment and the features of that environment which are significant to them."*
94. The Turitea application is unique in that the site of the proposal is located extremely close to a large rural and residential / urban population of Palmerston North. TAG estimates that the visual amenity of over 100,000 people will be directly adversely affected. An unusually large number (68 residences) are situated within a 2km radius of the proposal, and a

significantly more number of households will experience significant loss of amenity should the proposal be consented.

95. The Court in *West wind*¹ recognised the adverse effect that wind farms can have on amenity values in highly populated areas:

"[139] understandably residents have a desire to maintain their current rural amenity. Most residents do not oppose a wind farm in the principle, but want greater separation distances between turbines and residences than those which are before us. The experts agree that there will be houses where effects, particularly visual, will be substantial and adverse."

96. TAG/ Friends are concerned about visual amenity (both private and public), recreational amenity, noise and health and the social impact and effects on community wellbeing. TAG/Friends defers to the evidence and submissions of Hauatau Marae in respect of traffic impacts.

Visual Amenity

97. Visual amenity can be described as being a measure of the visual quality of a landscape as experienced by residents, workers or visitors. Visual amenity effects are created when a proposal, such as a wind farm, cause changes to the views of the landscape as experienced by such people.

Significant Amenity Landscape (SAL)

98. All landscape experts are in agreement that the rural residential areas comprising of Kahuterawa, Turitea, Ngahere Park, Polson Hill, Moonshine Valley, County Heights, Ridgeview and Pahiatua Track communities situated in and around the surrounding foothills of the Ranges ("the foothills communities") are high amenity landscapes, valued by residents who live there for the rural lifestyle, naturalness, space, elevated views over Manawatu, considerable views to the Reserve, and views and recreational

activities offered by Harding's Park and Tararua Forest Park and the quietness of these areas. These values are reflected in the PNCC District Plan provisions for the rural zone.

99. Of note is section 10, R10.7.1.1 of the plan makes provision for residential zone set-back distances in the Turitea / Aokautere areas. This rule is intended to avoid the adverse landscape effects of constructing structures on ridgelines in order to preserve natural views of the landscape when viewed from the floor of the adjoining valley. Erecting turbines in these areas is contrary to this control.

Private (Residential) Amenity

100. Mr Bray has undertaken a detailed assessment of the affects of the proposal and redesign on visual amenity from over 50 vantage points, in and around Palmerston North. It is noted that while Mr Bray considers that a reduced proposal *may* be achievable, albeit in a severely reduced form, this is not the view advocated by TAG/Friends, who agree with Ms Lucas's wider assessment of the landscape as being unsuitable for further wind farm development.

Ngahere Park

101. Mr Bray considers that the effects of turbines in this area are significant; many of the residences in Ngahere Park currently enjoy natural views over Bryant Hill. The proximity of turbines to residences would mean turbines are very close to residences, almost "in your face," would mean significant derogation of the pastoral, rolling undeveloped landforms and high amenity values currently enjoyed by residents. While the redesign has made some improvement, the adverse effects of the proposal are still unacceptable. The cluster of isolated turbines 0074-0078 (Group B) will result in considerable adverse visual effects. These turbines will be perceived as "out of place" appearing closer, clearer and larger in scale than the rest of the wind farm.

Pacific Drive

102. This is a densely populated and growing area, the Ranges and foothills in play an important role in providing a natural and serene backdrop to urban life here. The size of the turbines and positioning on the lower landforms will create a feeling of domination. Mr Bray also notes that the turbines on Brown's Flat will also have adverse effects on viewers from Pacific Drive, due to the extent of the Ranges occupied by turbines and the overlapping of turbines appearing in a lineal arrangement along Browns Flat West (Group H).

Harrison's Hill Road Area

103. People in this area are already faced with the reality of living with *Te Rere Hau*. The proposed turbines on Bryant Hill, while distant will contribute to the "encapsulation effect" of living encircled with turbines featuring in 180 degrees of their circle of vision. In Mr Bray's view the turbines in Group C dominate the area creating unacceptable effects and should be removed, He is also of the view that the relocation of the turbines on the top the Pihiatua Track is insufficient to avoid the significant adverse effects on this area.

Polson Hill Drive

104. The residences in this area will experience a combination of the encapsulation effect and the dominance caused by the isolation of the cluster of Group B turbines.

Kahuterawa Valley

105. The amenity effects differ as the result of many different viewing opportunities available in the valley. Mr Bray is of the opinion that the redesign has reduced these to acceptable levels in most areas however continues to have concerns about the visual amenity effects on residences towards the end of Green's Road.

Eastern Side

106. While many residents on this side will be screened from the proposal there are residents in Mako Mako Road that have extensive outlooks to the ranges, including the lower slopes which will be significantly affected. The Ranges currently provide a remarkably unmodified dominating natural landform, for which occupation by turbines will mean a significant change in character.

Views

107. Applicants, frequently attempt to rebut visual amenity evidence in respect of private residences by asserting that the Act does not protect private views per se. This is simplistic view of s 7(c) while there may be no absolute rights or ownership of a view, derogation of the quality of the environment that you reside in (including visual derogation) alters your response to and perception of the pleasantness' that environment, elements which are rightfully relevant considerations under s 7(c).

Mitigation Measures

108. My Wyatt is overly optimistic and strongly reliant on the ability vegetative planting or screening as mitigation for visual amenity effects from private residences. He goes so far as to suggest that in the majority of cases screening has the ability to reduce the effects the wind farm substantially. This fails in the to acknowledge the physical limitations of vegetative screening; the fact that people enjoy all areas in and around their residence and properties; that in many cases screening compromises views and restricts light; that plants are relatively temporary, susceptible to environmental and seasonal changes and may take considerable time to reach sufficient height / size to provide any visual mitigation at all. Screening is particularly ineffective where large numbers of turbines can be seen, where turbines are situated on ridges above properties, screening is futile.

Public views and recreational amenity.

109. The proposal will result in significant adverse effects on the amenity values of a large portion of the Palmerston North population, who value both their view

the Ranges and reserve and the naturalness of the undeveloped environment in providing for recreational pursuits. Over 55 % of the initial submissions opposing the wind farm came from those who live in urban areas, it is noted that the re-design has not altered the significant impact that the proposal will have on city dwellers.

City Views

110. Ms Lucas's visual attachments illustrate the significant effects that the wind farm would have on the visual amenity from publicly assessable areas including Palmerston North City, Harding's Park and Turitea Reserve.
111. Views of the Tararua Ranges, Tararua Forest Park ONL and the skyline of the Tararua Range are important natural features of Palmerston North City. The proposed ONE plan notes the importance of the skyline in particular '*as viewed at sufficient distance from the foothills.*'
112. Both Mr Anstey and Ms Lucas are highly critical of Mr Wyatt, and consider that he has downplayed or underestimated the adverse effect of the wind farm on the views from the City. Both comment on the grid layout of the City, illustrating that the city was developed to take advantage of the public vistas to the Range lands. In their opinion these vistas would be significantly affected by the inclusion of elevated turbines on and above the Ranges. The redesign does not diminish the visual effect that *Turitea* will have on the views from the city. It is noted that the applicant has failed to provide a viewpoint of the redesign from urban Palmerston North.
113. Ms Lucas has identified public view sheds from around the city, including examples of broad views of the ranges that many city vantage points enjoy, from these areas she notes that the full length of the proposed wind farm *would be fully visible* and assesses the effects of the proposal on all city views of the range as being highly significant in her view altering the memorability and relationship between residents and the ranges and the ONL they contain.

114. Mr Bray also notes that from some streets in Palmerston North City turbines would create a “picket fence effect” and that the Turitea wind farm would make turbines more apparent in people’s every day views from the city.
115. The Importance of public views to ONL was discussed by the Court in *Bell v Southland SC* (C033/06) 29 March 2006, a case which concerned the development of a piece of land adjacent to Lake Te Anau, the Court commented on the importance of preserving the integrity of public view shafts to ONL. Judge Smith noted the importance of ‘public view shafts’ from walkways and the State Highway, as the way many experience this landscape:
- “We consider that the overall effect of the SRA is to see, as a first priority, the preservation of views from State Highway 95 towards the national park (which includes Lake Te Anau). For this site this would be particularly relevant for people coming from the south (Manapuouri) towards Te Anau. There are two key viewing points on the road.’*
116. at paragraph [36]:
- “In terms of the plan and general outlook towards the lake from the site, the impact on people using the walkway track or the old Road is secondary to the impact upon people utilising the state highway. In terms of impact we consider the effect on both users of the state highway and the walking track and old road are important. Impact on these later viewers are ones that are either implicit within 4.5 or are to be directly considered as part of the visual amenity considerations under s 7 of the Act”.*
117. In that case the Court granted consent to a reduced proposal which avoided compromising the public view-shafts from these places, so to minimise the adverse effects on public amenity values.
118. The importance of public view shafts was also noted by the Court in *Intercontinental Hotel v Wellington Regional Council*, EC, Wellington Decision

No. W 015/2008 In that case Dwyer J declined consent to the Hilton Hotel complex on Wellington Waterfront on the basis of the significant adverse amenity effects where the planning documents recognised the importance of scenic views from the city.

119. It is clear from the attachments of Ms Lucas that the proposed wind farm will drastically and significantly alter the skyline of Ranges when viewed from Palmerston North City.

Recreational views/ amenity

120. Harding's Park provides significant recreational opportunities. Ms Lucas and TAG representatives have described in detail how the turbines would cause severe adverse effects by significantly disrupt the experience of naturalness and quality of views from these highly valued areas. Both Ms Lucas and Mr Bray are highly critical that the re-design has made no effort to re-consider or mitigate the significant visual and amenity effects on Red-Rock Knob and Toi Toi Flats in Harding's Park.
121. Mr Bray considers that Groups F-K and Group D (turbines 28-33) would create a variety of localised visual amenity effects; he also notes that he *'considers that these groups collectively would also give rise to more significant visual amenity effects on the wider viewing catchment.'* In his opinion:

the greatest impact the turbines in these groups would have would be on the outward view from Red Rock Knob. This peak is a destination on the Sledge Track, a walkway that rises up from the carpark at the top of the Kahuterawa Valley. The walk/hike is a 6 hour return trip, and traverses through native vegetation and several historical sites, before reaching the Knob where expansive views open up to reward the climber.'

122. Harding's Park also for fulfils an important recreational function for the Palmerston North community, providing a natural experience, wilderness

walks and considerable views, which serve an vital role in the maintaining the social well being and health of the community as recognised in the District and proposed Regional Plan.

123. 'It is submitted that the applicant has severely underestimated the adverse effects of the proposal on visual amenity, including private, recreational and public views, and is inconsistent with s 7 (c) of the Act.

Noise

124. TAG/Friends consider that the application fails to adequately protect the health and well being of nearby residents from the potential adverse effects of noise and vibration. It is believed that these effects will be more than minor and have the ability to severely undermine the natural character and amenity values of the rural area. Dr Thorne estimates that that:

58 dwellings (174 people) are within 40-45 dBA contour;

148 dwellings (444 people) are within the 35-40dBA contour; and

537 dwellings (1611 people) are within the 30-35dBA contours.

125. In total that 743 dwellings (approximately 2229 people) may be adversely affected by turbine noise. In comparison to *Makara* there are 30 times more people living within the levels which have caused severe adverse effects for those residents.

Permitted baseline

126. Rule 9.12.1 District Plan noise controls for the rural area indicate minimum noise level as being 40dBA(L10) or night time limit of up to 75dBA (L max)(as being permissible, but notes that wind farms must be considered on a case by case basis. It is considered that the permitted baseline is unhelpful in determining suitable levels for turbine noise. The noise limits are intended to apply to various permitted activities in the rural zone, for example farming, forestry and construction activities- none of which are realistically comparable

to the permanent and constant nature of wind farm noise and can be distinguished on this basis.

Appropriate standard

127. It has been accepted that New Zealand Standard 6808:2010 Acoustics- wind farm noise is the appropriate standard to be implemented. TAG/Friends agree with the experts that to avoid remedy or mitigate the adverse affects of the proposed wind farm NZS: 6808: 2010 should be used *as a starting point in conjunction with more stringent conditions.*

High Amenity Areas (“HAA”)

128. The caucusing agreement and draft conditions provide that the rural zone should be treated as a HAA (subject to background monitoring) the 2010 standard provides that in certain circumstances a higher level of acoustic protection should apply in areas with “low background levels” during evenings and at night time.
129. The District Plan does not identify HAA or contemplate any protection for the sound environment of a particular area, although Rule 9.9.2 and Policy 2.3.1 of the District Plan are aimed at protecting the environment from the adverse effects of noise and recognise the impact that noise can have on the amenity of the surrounding area.
130. The draft conditions propose that rules should apply where supported by background noise assessments (irrespective of the District Plan) and do not exclude areas already affected by turbine noise from consideration. This is considered appropriate as it is considered that residents should not be prejudiced because Councils have not had sufficient time to identify HAA to give effect to the new standard.
131. A new “subjective” complaints mechanism in respect of unreasonable noise is also proposed. TAG/Friends are supportive of these recommendations noting that they are a step in the right direction as they provide resident’s further recourse than the limited means of relief currently provided in s 16 of the Act.

Situation at Makara

132. Since the turbines became operational in April 2009 residents have experienced significant adverse noise effects including vibration, thumping, roaring and tone effects resulting in prolonged and severe sleep deprivation, headaches, difficulty concentrating and significantly impacted amenity. Many reported frequently resorting to a combination of medication and earplugs in order to sleep or abandoning their homes temporarily to get relief from headaches and catch up on sleep. It is clear from their accounts that turbine noise has significantly impacted on their quality of life and ability to function. These are “reasonable” and valid complaints many of which have been validated by excessive tonal measurements at their properties.
133. The health effects suffered by the *Makara* residents contrast starkly with the Dr Black’s evidence for Meridian that categorically asserted that noise from the *Makara* would not result in any adverse health effects that were more than minor. He also noted that only “particularly sensitive people” opposed to turbines would be “annoyed” by turbine noise and urged the Board to make a decision as to whether these “perceived concerns, were reasonable or not.” The testimony of the *Makara* residents shows that it is not only the “overly sensitive” or “especially susceptible” people who have been detrimentally affected.
134. Dr Black has presented similarly optimistic evidence in this case, Dr Dixon raised a compelling point in this respect:

If I can return to sleep disturbance Dr Black states, “Through the evolution of the design of the Turitea wind farm, levels of noise or any other physical factors which could cause sleep disturbance have been eliminated”, and that is paragraph 79. This is certainly a bold statement given the noise effects and sleep disturbance suffered by residents adjacent to the Makara wind farm and, as I say, other wind farms.

135. Dr Black's adamant denial of the adverse health effects of turbine noise, is inconsistent with the reservations of the noise experts that they have no way of predicting whether or not adverse noise effects will occur, for example, whether certain characteristics will give rise to special audio characteristics and tonality issues. It is submitted that Dr Black's evidence is unreliable and should be afforded little weight.
136. TAG is concerned by the growing body of information on health effects experienced by residents living close to wind farms, including reports of sleep disturbance, psychological and anxiety disorders discussed in Dr Pierpont's book '*Wind Turbine Syndrome*', the cases documented by Dr Thorne and Makara residents.

Inability to predict adverse effects

137. Of concern is the high level of uncertainty as to how these effects are caused and when they may occur. Despite the rigorous modelling prepared in support of the application the experts were unable to predict the adverse effects that occurred at *Makara*.
138. As a result of the adverse tonality and special audio characteristics penalties apply to several dwellings meaning that in some situations the wind farm is non-compliant or is close to not complying with permitted noise levels. It is not yet known whether Meridian is able to rectify these problems completely.
139. Mr Lloyd, described how it is difficult (if not impossible) to predict the actual adverse noise effects of wind farms prior to commissioning. In his expert capacity he failed to predict or even anticipate the serious adverse effects that residents have been subjected to at *Makara* and *Te Rere Hau*:

"Now with both sets [Te Rere Hau, Makara] unfortunately with both wind farms there are certain characteristics associated with the turbines which to me I did not envisage would occur when the - during the consent hearings."

Makara Compliance

Of substantial concern is the fact that many of the *Makara* residents continue to experience adverse effects of turbine noise *despite the fact* that both Meridian and the Council have indicated that in most respects that *West Wind is operating within its consent conditions*. This is suggestive that the consent conditions of Makara were inadequate and were not sufficiently robust to protect residents.

Inadequate conditions

140. In light of the experience at *Makara* TAG is of the view that NZS: 6808: 2010 (coupled with the proposed conditions) are still inadequate and will not be able to protect residents. This is supported by evidence from acoustic experts Lloyd, Dickinson, Trevathan and Thorn;
141. Professor Dickinson has explained in detail how there are severe flaws in the method which the NZS 8608: 2010 standard employs to measure background sound levels. In particular how the noise reduction inside dwellings occurs and are measured and calculated. As a result of the flaw he suggests that significantly higher inside noise levels may be experienced than predicted, resulting in actual night time inside noise levels that greatly exceed the WHO Recommendation off 30dBA. In cross- examination Mr Trevathan, also observes that Mr Hegley appears to be less certain of the ability of the standard to protect residents, noting:

' I note in particular, in paragraph 3.3, that in the original assessment of effects Mr Hegley had stated that he believed the effects of the development would be no more than minor based on compliance with the 1998 current version of NZS 6808 even in a low background sound environment.

I note that under cross-examination yesterday Mr Hegley was asked a similar question, responded that it was not a simple yes or no answer.'

142. Mr Lloyd also appears to have lost faith in the ability of the standard and proposed conditions applied to protect the community. Noting: (P3515)

"So in summary I think I am jaded by wind farms, by wind farm noise, and I am less sure than Mr Day of the ability of standards to control the noise and to make sure that people are not annoyed by the noise.'

143. In TAG/Friends view the closeness of the proposed *Turitea* wind farm to large populations will serve to exasperate any resulting adverse noise effects. If adverse affects do occur from *Turitea* significantly higher levels of people stand to be affected and will give rise to much greater potential effect than that of *Makara*.

Precautionary Approach

144. In the circumstances TAG/Friends considers that a precautionary approach is warranted due to the inherent uncertainties surrounding acoustic noise and adequate conditions and the significant consequences if the experts get it wrong.
145. It is considered that this approach is consistent with the applicant's duty to avoid, remedy or mitigate unreasonable noise under s 17 of the Act.
146. The Act s 3, s104 (1)(a) and s3 also requires you to have regard to the potential adverse effects of an activity on the environment, including a potential effect of low probability with high potential impact.(See *Sea Tow Ltd v Auckland RC Env C A066/06*) In *Rotorua Bore Users Association v Bay of Plenty RC*, Env C A138/98 the Court noted that careful judgement is required and in some cases that may only be achieved by adopting a precautionary approach. It is submitted that this is such a case.

147. In *Land Air Water Association v Waikato RC* EnvC W042/01 the Court noted that where the precautionary approach is raised the Court is required to exercise its discretion in the circumstances of the case, including:
- (i) Evidence of adverse effects or risk to the Environment, rather than mere suspicion or innuendo;
 - (ii) The gravity of the effects, regardless of the scientific uncertainty, if they do occur;
 - (iii) Uncertainty or ignorance regarding the extent, nature or scope of potential environmental harm;
 - (iv) The effects on the environment and whether they are serious or irreversible;
 - (v) Recognition that the Act does not endorse a “no risk- regime.”
148. TAG/Friends consider that the current situation meets this criterion. The plight of the *Makara* residents and many of the adverse effects experienced by those people have been supported by the findings of testing by Meridian and Wellington City Council as contained in the Peer Reviewed Compliance Report, the work of Dr Thone and Dr Pierpoint.
149. The adverse effect if these noise issues are replicated at *Turitea* will cause serious harm due to the high number of residents who stand to be affected.
150. The comments made by Lloyd, Hedley, Botha, Dickinson and Thorn all indicate that there is considerable scientific uncertainty, as to whether adverse noise effects will in fact occur, and whether or not the standards and conditions are adequate to protect the community. Past experience has shown that this cannot be predicted prior to commissioning.
151. These are factual assertions with a plausible and evidential basis and are not merely suspicion or innuendo (See *Transpower NZ Ltd v Rodney DC* A085/94 PT) the high level of agreement amongst the experts that the adverse effects cannot be predicted also serves to distinguish the case from circumstances

where there is a dispute of the material facts. *Makara* and *Te Rere Hau* have provided sufficient examples illustrating the reliability of the proposition as required in *McIntyre v Christchurch CC* (1995) 2 ELRNZ 84(PT).

152. The *Makara* experience also indicates that residents who have prolonged exposure to audible effects of tonality may continue to “hear” these despite levels being rectified, should this be the case the harm caused may not be as revisable as previously thought.
153. While an acceptable level of “risk” is acceptable, it cannot be shown that the conditions proposed are sufficient or will be effective to protect residents from the (unknown) adverse effects of noise from the turbines.
154. For the reasons outlined above TAG/Friends submit that a precautionary approach is warranted to prevent serious harm occurring to the residents as a result of adverse noise effects in a situation where considerable uncertainty exists.

Setback Distance

155. If the Board is of the view to consent the application, TAG/Friends request that it consider imposing a 2 km set- back limit to mitigate (and limit exposure to) the potential significant adverse visual and noise effects from wind turbines. This has been implemented in overseas jurisdictions which have sought to deal with the incompatibility of turbines with residential activities by imposing turbine setback distances of between 2-3 km from dwellings.
156. It is noted that several District Councils in New Zealand including Porirua DC are also seeking to include boundary set- back distances (albeit small ones) for turbines within their district plans. In the circumstances, TAG considers that set- back distances are a reasonable way to avoid exposing large numbers of residents to the serious potential adverse effects of the wind farm and reduce the complaints caused due to the incompatibility of wind farms with residential activities

157. It was acknowledged by Mr Lloyd in response to questioning from the Board that if the Court had imposed the 3km set back distance proposed by Dr Thorne in *Makara*, *'significantly less people would have been affected.'* Given the experiences at *Makara* and *Te Rere Hau* it is considered sensible to impose a set-back distance which will effectively reduce the harm caused by *minimising the number of people who are exposed to the serious adverse effects of wind farms.*
158. TAG/Friends are supportive of Professor Dickinson and Dr Thorn's view that a 2km set-back distance should be implemented in conjunction with NZS: 8608:2010 and the conditions proposed in order to adequately protect the community.
159. TAG/Friends are of the view that due to the location and topography the proposal will detrimentally affect the amenity values and cause significant unacceptable visual effects that are more than minor that cannot be avoided remedied or mitigated. There are 68 residences (approximately 180 people) whose visual amenity will be adversely affected to unacceptable levels as a result of living within 2km of the turbines. Many more (it is significant that the applicant has not sought to quantify this figure), would suffer visual amenity effects on their properties which are more than minor.
160. A 2 km set back distance is consistent with the evidence of Bray, Lucas and Anstey in respect of unacceptable adverse effects on visual amenity values. This is also in keeping with classification systems as to the visual impact of wind farms cited by Brown, Bray and Anstey which all recognise the significant visual dominance of turbines at distances of 0-2 km. Mr Anstey notes that this calculation was intended for use with 90 metre turbines and in fact, significant adverse visual effects are likely to occur within 0-3km where turbines of 125 m+ are used.
161. Mr Bray summarises his findings on impact on visual amenity noting that *"As a general rule of thumb, it is therefore considered that from viewing locations within 2km of the proposal, the potential effects on visual amenity are likely to*

be significant." This view is mirrored by Mr Anstey and is consistent with the findings of the Environment Court in *West Wind* (paragraph [142]):

'We accept that for distances less than 2km there is a potential for turbine to be visually prominent with potential adverse visual effects to be significant. Where multiple turbines are the viewing focus, effects may be significant and adverse up until 3km.'

162. This was confirmed in *Motorimu* at paragraph [222]:

'even taking a very cautious approach to the various rules of thumb which the landscape witnesses have applied, it is apparent from the landscape evidence that, for those living within 2 kilometres of the proposed wind farm, there is a real potential for the additional turbines to become a visually dominant feature of the environment and to have a high degree of adverse effect on visual amenity.'

163. While it is acknowledged that there is no "magic number" at which a set-back distance will ensure all potential effects are avoided, there is acceptance amongst both the noise and landscape experts that most significant and adverse visual and noise effects are experienced by residents who live within 2 km of wind turbines. Imposing a set-back distance is a sensible and precautionary way to deal with these adverse effects.

Approach to efficiency

164. The applicant claims that the application represents an efficient use of resources under s 7(b) citing that the proposal is an efficient use of the "wind resource" under s7(b).

165. The applicants approach to efficiency was rejected by the Court in the *Lammermoor* decision (currently on appeal to the High Court.) and the recent decision in *Lower Waitaki River Management Society Incorporated v Canterbury Regional Council* Decision No. C80/2009. At [224] of the *Lammermoor* decision the Court noted:

'In wind farm cases it is becoming common- see for example Makara, Unison One-to put two benefits in the ledger a efficient use of resources; the use of wind (previously "wasted") and the continued use of the (farm) land underneath. If section 7(b) is to be more than another was of reiterating a value judgement about irreconcilable values then the issues it raises should be stated more concretely and fully.

166. The applicant has also sought to rely on *LRG Investments Limited v Christchurch City Council* C064/98 in support of its assumption that because a wind farm is a discretionary activity under the district plans it raises the inference that the activity is an efficient use of the resources.
167. The *Lammermoor* decision (under appeal) and the *Lower Waitaki* decision rejected this approach noting that there needed to be more basis for such an inference at paragraph [229]:

While there is a priori an assumption that a class of activity may be efficient, it may not necessarily be so for a specific proposal, and needs to be confirmed with regard to the specifics of that proposal. For the economic reasons stated in the *Lower Waitaki* decision we consider that it is correct, and especially where a matter of national importance is raised under s6 to the RMA, the specific costs and benefits of a proposal should be examined and if possible quantified.

168. It is noted that while the Board is not bound by those decisions, the *Lammermoor* decision in particular is an important decision which represents a significant departure from the current approach to ss 6 and 7, and it is submitted that it is relevant to your consideration. My Leyland's evidence calculates the benefits claimed by MRP in this regard.

Overstatement of benefits

169. TAG/Friends are critical of the applicants calculations in regards to the significant national benefits the proposal provides and do not consider that the

wind farm offers national or local benefits that would offset the significant adverse effects of the proposed development.

170. You have heard from Mr Leyland, whose expertise includes power system operation and optimisation and transmission systems. His evidence discusses the unreliability of wind power and the costs of the project.
171. Mr Leyland's evidence casts significant doubt on the contribution that the *Turitea* installation would make to the economic wellbeing of the community, to renewable generation supply, and reduction of green house gas emissions. His evidence is indicative that the applicant has overestimated the energy output of the proposal and has exaggerated any benefits that will be derived from it.
172. He notes the unreliability of wind generation as demonstrated by the low outputs of *Te Apiti* wind farm. He draws attention to the fact that the fact that *Turitea* is purported to produce enough energy to meet the requirements of 140,000 homes, is somewhat different from saying that 140,000 homes can actually rely on upon the *Turitea* wind farm for their energy needs.
173. In Mr Leyland's view, the *Turitea* wind farm is inappropriate as there are little gains in so far as output or maintaining security of supply. *Turitea* will be subject to the same ebbs and flows of wind patterns as existing wind farms in the vicinity. The existing base load and hydro generation cannot currently be managed to effectively utilise all the power generated by "clustered" wind generation in one geographical location at times of maximum generation.

SECTION 104 OF THE RMA – DISCRETIONARY ACTIVITIES

174. A bundling approach has been taken to the activity status of the proposed development. Because the application encompasses a number of different but interrelated activities with differing status under the District Plan, the most restrictive '*discretionary activity*', status has been applied to the entire application. (See *King v Auckland City Council* [2000] NZRMA 145.)

175. Section 104 of the RMA sets out the issues required to be considered by the consent authority in relation to discretionary activities:

(1) *when considering an application for a resource consent and any submissions received, the consent authority must subject to part 2, have regard to:*

- (a) *any actual and potential effects on the environment of allowing the activity; and*
- (b) *any relevant provisions of-*
 - (i) *National Policy Statement*
 - (ii) *New Zealand coastal Policy statement*
 - (iii) *a regional policy statement or proposed regional policy statement;*
 - (iv) *a plan or proposed plan; and*
 - (v) *any other matters the consent authority considers relevant and reasonably necessary to determine the application”.*

176. Section 104B of the RMA states:

“After considering an application for a resource consent for a discretionary activity [...]a consent authority –

- (a) *May grant or refuse the application; and*
- (b) *if it grants the application, may impose conditions under s8.’*

177. Under s 104B of the RMA the Board has jurisdiction to grant or refuse to consent discretionary applications. TAG considers that the significant adverse affects arising from the application are more than minor and cannot be

- avoided, remedied or mitigated by conditions, and requests that the Board decline the application.

First limb – adverse effects more than minor

178. Section 104(1)(a) requires the Board to consider ‘any actual and potential effects on the environment from allowing the activity.’ The significant adverse effects which TAG says will arise out of this development have been outlined in detail in the evidence from its experts and submissions and representations by TAG/ Friends members.

Effects to be assessed against the future environment

179. When assessing the effects of the proposed wind farm on the environment for the purposes of s. 104 the Board must take into account the receiving environment as it might be in the future, rather than as it currently exists. In that respect the Board must assess the effects of the proposed Turitea Wind Farm as against the environment, this including consideration of the existing operational wind farms and also consideration of the environment as it will be (or is likely to be). This includes implementation of the consents for *Te Rere Hau* wind farm (Stage II) As it has been confirmed that the *Motorimu* consents have been surrendered those consents are not a relevant consideration.
180. The Board is also required to consider the current application in relation to the subdivision consents granted for residential development at the foothills of the Tararua Ranges to the west of the application site, and extending across towards Palmerston North and the potential effects that may be suffered by the future residents of that area.
181. This is consistent with the approach endorsed by the Court of Appeal in *Queenstown Lakes District Council v Hawthorn Estate Limited & Ors* (Unreported, Court of Appeal, CA45/05, 12 June 2006) at paragraph [64]:
- “...all the provisions of the Act to which we have referred lead to the conclusion that when considering the actual and potential effects on*