

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a Board of Inquiry appointed under s146 of the Resource Management Act 1991 to consider an application by Mighty River Power Limited for resource consents to construct, operate, and maintain a wind farm at Turitea

STATEMENT OF EVIDENCE OF KEVIN WILLIAM LOW

INTRODUCTION

My name is Kevin Low and I am the President of the TARARUA-AOKAUTERE GUARDIANS (“TAG”), an incorporated society formed in 2004 to protect the unique environment and natural resources of the Tararua Range which includes all of the land bounded by the Manawatu River, Manawatu Gorge Road, Ballance Valley Road along Makomako Road to Marima, across the Tararua Range to Albert Road, through to Opiki and back to the Manawatu River. TAG aims to maintain the existing benefits and characteristics of the land for future generations.

1. I am an electrical engineer by training, and have held senior positions in the high-technology manufacturing sector as well as a period as an Adjunct Professor at Massey University. I currently practice as a consultant in Product Development to a range of New Zealand and international companies.
2. I am an affected party in that I live at 107 Ngahere Park Road in the Turitea Valley. My home looks along the line of the Tararua Ranges, viewed through floor to ceiling glass on the entire north-facing aspect. I presently have an unrestricted view of over 70 turbines from existing windfarms while sitting in my lounge.
3. My home is some 1.4 km from some 15 turbines planned as part of the Turitea Windfarm. I would have a view of some 30 other planned Turitea turbines from various aspects of my home.
4. The purpose of my evidence is to introduce TAG, describe its values and put the concerns of its members.
5. As its duly elected President, I am authorised to give this evidence on behalf of TAG.

THE SOCIETY

6. TAG has represented the community, specifically its members, in relation to previous wind farm applications, notably the Tararua III (Trustpower), Te Rere Hau (NZ Windfarms Ltd), and Motorimu (Motorimu Wind Farm Limited (MWFL)).
7. In the most recent case, TAG presented a case at the Motorimu Council Hearing (March 2007) supported by expert evidence provided by a team of experts in the areas of noise, health, energy, and visual/landscape impact. The quality of this submission and expert evidence was noted in the Decision of Joint Hearings Commissioners (Sections 1.24 and 1.25). The outcome of the Council hearing was

that 52 of the proposed 127 turbines were declined consent based on visual and cultural impacts. The adverse impacts of noise on local residents from the proposed windfarm were also noted by the commissioners and the evidence provided contributed to the deletion of many of the 52 turbines that were declined consent. Further, relatively stringent noise conditions were imposed to help mitigate potential effects of noise, which were subsequently appealed by the applicant.

8. TAG represented the community at the subsequent appeal called by the applicant. The decision [W067/2008] of the Environment Court recorded the following “During the pre-hearing process the court suggested it might be efficient for as many parties as possible to band together for the purposes of joint representation. Many of the s274 parties did so and were represented at the hearing by TAG although they clearly retained their own s274 status”. The outcome was that the Court largely dismissed the appeal by Motorimu Windfarm Limited.
9. TAG has now had direct involvement with four windfarm approvals and is amassing a significant body of evidence on which to base its concerns. TAG believe if consent is granted for the full 122 turbines that are the subject of this application, there will be significant adverse noise impacts on many local residents, creating an environment which will not only be unpleasant, but potentially uninhabitable for some people.
10. TAG’s position relating to the MRP application has been formulated through holding three membership meetings, numerous email and face-to-face communications, membership surveys and two public submission workshops. The TAG working committee has met eight times to this point and members estimate a total time commitment of some 1,200 hours.
11. TAG enjoys wide community support with membership fluctuating between 60 and 300 active members. During campaigns the fundraising activities have increased as required. The Society has solicited over \$40,000 in donations from the general public and the membership for various campaigns. Our current membership stands at 186.
12. Membership is drawn from a wide geographical area but is dominated by rural lifestyle residents who have a special interest in the Tararua Ranges and feel a connection by virtue of choosing to live in close proximity. Figure 1 indicates the spread of members.

MY CONCERNS

13. I live 1.4 km away from this proposed windfarm. Despite a plethora of windfarms in this region there are no homes as close to any existing turbines of this class, yet I was not visited or contacted in any way before the applicant's plans became public.
14. I have also not been visited or contacted by the applicant, excepting by general mail drops, since the application became public, in spite of visiting the applicant's open day at the Convention Centre and writing a submission in opposition.
15. I believe that my family and I would be massively affected by the proposed windfarm as planned. In my view any landscape expert would have to agree that the effect on my visual amenity would be significantly more than minor, and cannot be mitigated by planting trees because of fall of my section.
16. I have prepared a montage using the material available in the application in the absence of characterisation of my situation by the applicant (Figure 2). The view shown is from my front lawn immediately out from my lounge door. This view is prominent from five rooms in my home.
17. My position is not unique or special. Most of my neighbours would be similarly affected with regards to local visual amenity. In fact I estimate that perhaps up to 1,000 homes (3,000 people) could have more than minor adverse visual amenity effects as interpreted by the applicant. I repeat again that this is my estimate, and note that it is unfortunate that I have to estimate and that the application has made no attempt to characterise the number of homes with more than minor visual amenity effects.
18. I am also greatly concerned that this application will be injurious to my health. I base my concerns on the amount of literature I have read and from talking to affected people in the Manawatu. I have personally read over 140 scientific peer-reviewed papers or articles in reputable scientific journals before coming to my conclusion.
19. Some 50 papers were describing the impacts of noise on health. It seems very hard to reconcile the applicant's position that states "there is no evidence of health effects from noise". To me there seems to be a substantial body of compelling evidence in the literature on adverse health effects from noise including a highly ranked international journal called **Noise and Health** which is dedicated to this topic. My reading also included a range of biomedical, medical, and environmental health

literature, published both in peer reviewed reputable journal papers and peer reviewed reports.

20. The applicant states that “noise will not be a problem” with this windfarm. This is difficult to reconcile given the vast number of published papers on “this problem”. Additionally the **3rd International Conference on Wind Turbine Noise** is to be held in Denmark during June 2009. The Second Wind Turbine Noise conference took place in Lyon, France in 2007 with more than 150 delegates from 24 countries.

21. I have read some 90 papers relating to noise from windfarms and the annoyance and subsequent health implications.

22. Of particular interest to me was the recurring theme that noise (and thus health) affects cannot be predicted with sound measurements and their associated standards, and that a set-back distance is widely considered to be the only way to ensure the safety of people. The set-back distance mentioned most for terrain similar to this region is 3 km.

23. I was able to determine the number of homes near the turbine groupings used in the BRAY evidence (Para 154):-

- Group A 283 dwellings
- Group B 185 dwellings
- Group C 30 dwellings
- Group H 50 dwellings
- Group K 78 dwellings

This leaves the potential for up to 1,500 people to be within a proximity to turbines that would not be acceptable in many other jurisdictions.

24. I also noted that the applicant’s evidence (Hegley, Day) relied solely on the use of NZS 6808, and 40 dB(A) in particular, to describe what effects this application could have on people’s health.

25. The Environmental Court of New Zealand issued a decision on July 20, 2007, which required that when the background sound conditions are at 25 dBA or less, the noise from a wind farm shall not exceed 35 dBA at any dwelling as an absolute limit. I understand a later decision found similarly in the Mill Creek case. A rewrite of NZS 6808 is nearing completion, has completed public consultation and is widely known. Clause 5.3.1 introduces a secondary noise limit of 35 dBA for use in quiet localities.

26. I find it curious that sound evidence from both applicant experts chose not to mention either the prior decisions or the upcoming Standard when reaching their conclusions.
27. I note that neither of the applicant's noise experts have developed a predicted noise levels model that categorises the extent of the 35 dB(A) envelope and neither make an attempt to determine how many people could be subject to this level of measured noise. From my knowledge of the locality, I believe the number of people residing inside a 35 dB(A) predicted profile may well be 1,200 people. Again I make the point that it is unfortunate that I have had to estimate this figure rather than being able to rely on the applicant's evidence.
28. I note that the applicant has addressed the fact that the predicted noise model indicates that some homes may experience in excess of 40 dB(A) by suggesting the turbines could be managed. I have absolutely no faith in the ability of a windfarm to be 'managed'. Generally the windfarm operator is quite remote from the locality and has only passing knowledge of the site conditions being experienced. For this reason, 'management' necessarily requires the response of an affected party –often having been woken in the night, getting up and making a phone call. Even assuming a reasonable response time, the affected party, and probably many neighbours are well and truly awake and can expect to experience sleep deprivation.
29. Our homes are but a small part of the package that defines our properties. By far the greatest component is the landscape that our properties and neighbourhoods nestle in. I am concerned with the number of turbines, their size, their movement, their dominance and their impact on the landscape. No photomontage could accurately depict the potential visual effects that concern me. Indeed, the people of Palmerston North are more expert than most in the visual dominance associated with wind farms.

TAG'S POSITION

30. TAG contends that the application does not accord with the requirements of the Resource Management Act 1991. In particular:
- The application is contrary to the objectives and policies of the Manawatu-Wanganui Regional Policy Statement, of the operative and proposed Manawatu-Wanganui Regional Plans, and of the operative Palmerston North City District Plan
 - The application is contrary to the provisions of Sections 104, and Part II of the Resource Management Act 1991 ("RMA").

- The application fails to consider adequately alternative methods to prevent or mitigate adverse effects from the wind farm, thereby failing to comply with section 5(2)(c) of the RMA.
- The application is in all respects contrary to sound resource management and town planning practice and principles.
- The application is premature by virtue of;
 - Absence of a cumulative effects analysis as noted in the Motorimu EC decision.
 - Absence of National Policy Statement
 - The current review of the noise standard
 - The Regional Plan (One Plan) being under review.

31. TAG believes that industrial scale renewable energy installations need to be of a scale, nature and location that adverse impacts on environmental and amenity values, and health and wellbeing can be avoided.

32. Specifically, TAG is opposed to any further wind farm development in the Tararua Ranges as it believes that this outstanding landscape is already saturated with wind farms and should be protected for current and future generations. In addition to being an outstanding landscape, this region of the Tararua Ranges is home to a growing number of residents seeking the peace and tranquility of a rural lifestyle. Due to the topography of this area, any wind farms proposed for this section of the Tararua's cannot be sited in a manner that avoids significant adverse environmental impacts.

33. The cumulative visual impacts of the proposed development are huge, being the sixth windfarm along a narrow stretch of the Tararua range, most of which are visible from many parts of the Manawatu, an area that is home to 100,000 people. If consented, this development will have significant adverse visual effects for the wider Manawatu Region, as well as significant adverse landscape effects destroying the natural beauty of the area for current and future generations. The case law in particular for windfarm cumulative effect is new and will almost certainly be formed by activities in the Manawatu region which has a plethora of windfarms visible to an entire region. Related RMA case law (non windfarm) has been studied and includes;- Browning v Marlborough DC W020/97, Wakatipu Environmental Soc Inc v Queenstown Lakes DC C135/02, King v Auckland CC [2000] NZRMA 145, and Blueskin Projects Ltd v Dunedin CC C098/07.

34. TAG seeks to persuade the Board that the offset value, the economic value the community in general receives weighed against the value this community gives up, is unequal and falls against the community.
35. Overall, TAG's belief is that the tipping point for the Manawatu region has been reached by this application and that the adverse environmental effects significantly outweigh any benefit to be derived for renewable energy and climate change. Put simply, this application positions too many turbines too close to too many homes resulting in significant adverse effects on amenity, health and cultural values, which cannot be offset by the small increase in generation provided by the turbines. TAG submits that this application should not be consented as the environmental cost is simply too high. This wind farm is simply in the wrong place to satisfy the criteria outlined in the RMA.

21 May 2009

Figure 1.

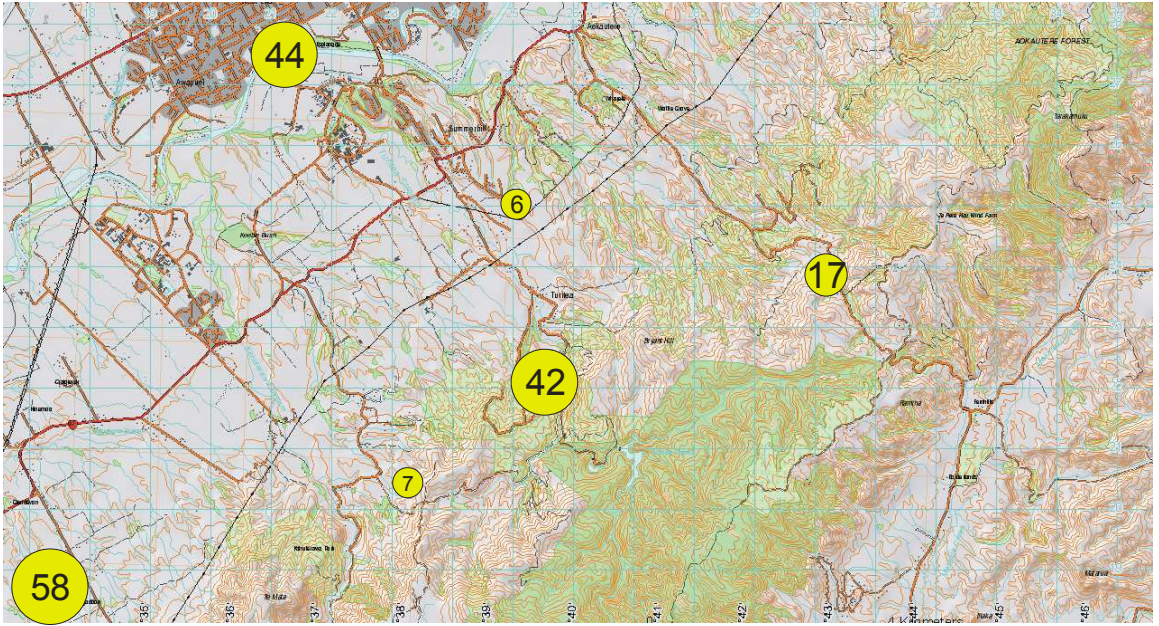


Figure 2.

