

SUBMISSION ON MIGHTY RIVER POWER LTD APPLICATIONS FOR RESOURCE CONSENT

Section 145 of the Resource Management Act 1991

To: Freepost Call In
Ministry for the Environment
PO Box 10362
The Terrace
Wellington 6143

OR

Email: turiteacallin@mfe.govt.nz
Fax: 04 439 7705
[Note: If you are emailing or faxing your submission,
please mark in the subject line: 'Turitea Call In']

This submission relates to the applications for resource consent lodged by Mighty River Power Ltd for the Turitea Wind Farm proposal as identified on the next page.

CLOSING DATE AND TIME FOR SUBMISSIONS: 5.00 PM MONDAY 23 FEBRUARY 2009

Title: Mr Mrs Miss **Ms** (Please circle the appropriate title(s) or print clearly below)

My/Our Full Name(s): Lee Meryl Huffman

Postal Address: 428 Pakiataua Aokautere Rd, RD1, Palmerston North

Work Ph: 06-355-6153 Home Ph: 06-353-0762 Cell: —

Work Fax: — Home Fax: — Email: lee.huffman@extra.co.nz

Please tick the relevant boxes on the next page to identify whether you are making a submission on all applications for resource consent or just some of them (please identify).

Please also indicate on the back of this form (✓) whether you support, oppose, or are neutral in relation to the applications. If you are making a submission only on parts of an application for resource consent, please note this when specifying the reasons for your submission.

The reasons for my/our submission are:

If you are attaching further information tick for yes

Please See attached submission document.

Please use more pages if you need to.

I/we seek the following decision from the Board of Inquiry (provide precise details including the nature of any conditions sought):

Please see the attached submission document.

Please use more pages if you need to.

I/we wish to be heard in respect of my/our submission (to speak at the public hearing).

Use a clear tick in the appropriate box below (✓)

I/we DO NOT wish to be heard and hereby make my/our submission in writing only.

Definitely.

Signature(s): Lee M Huffman
Lee M. Huffman

Date: 22 Feb 2009

(Signature of submitter, or person authorised to sign on their behalf is required. Note signature is not required for electronic (email) submissions. If this is a joint submission by two or more individuals, each individual's signature is required.)



Ministry for the
Environment
Manatū Mō Te Taiao

Use the tick boxes below to indicate the called-in applications for resource consent that your submission concerns.
 Use a clear tick in the appropriate box or boxes (✓).

I/we make my/our submission concerning all applications for resource consent below

OR

My/our submission only concerns the applications for resource consent that I/we have ticked below:

	Support	Oppose	Neutral
Manawatu-Wanganui (Horizons) Regional Council – Land-use Consents			
104553: for vegetation clearance and land disturbance in rare or threatened habitats, near streams and on highly erodible land throughout the general wind farm site.			
104554: for the construction of a double culvert in an un-named tributary of the Kahuterawa Stream as shown on the included map.			
Manawatu-Wanganui (Horizons) Regional Council – Discharge Permits			
104555: for the discharge of dust to air from the concrete batching plants to be located as generally shown on the included map.			
104556: for the discharge of dust to air from the mobile crushing plant throughout the general wind farm site.			
104557: for the discharge of wastewater from two operations and maintenance facilities to land to be located as generally shown on the included map.			
104558: for the discharge of stormwater from substations to land to be located as generally shown on the included map.			
104559: for the discharge of cleanfill to land in the form of spoil disposal sites throughout the general wind farm site.			
104560: for the discharge of stormwater from roads, turbine platforms and other areas to land.			
Palmerston North City Council – Land-use Consents			
RC0068: <ul style="list-style-type: none"> to establish and operate a wind farm in the areas within the Palmerston North city jurisdiction as generally shown on the included map to undertake earthworks associated with tracking and roading, turbine construction and associated buildings in the areas within the Palmerston North city jurisdiction as generally shown on the included map for the western side of Pahiatua Aokautere Road not meeting access requirements at the location shown on the included map for the storage of diesel (10,000 L) in bunded areas outside the Turitea water supply catchment, generally located at the two substation laydown areas shown on the included map, that exceeds the 0.2 effects ratio maximum in the rural zone for the construction of a 220 kV electricity transmission line and substations as shown on the included map. 			
Tararua District Council – Land-use Consents			
1448: <ul style="list-style-type: none"> for a wind farm (which is not listed as a permitted or controlled activity) in the areas within the Tararua District as generally shown on the included map for land disturbance of more than 200 m³ of soil and cleanfill material associated with tracking and roading, turbine construction, spoil disposal and other associated works in the areas within the Tararua District as generally shown on the included map for upgrades to South Range Road and the construction of new site access at the location shown on the included map for turbine and wind monitoring mast structures not meeting height requirements within the Tararua District for the modification of a Significant Natural Feature in Schedule 3.3 (ie, Tararua Ranges Ridgeline) for not meeting noise requirements for clearance of indigenous vegetation in the areas within the Tararua District as generally shown on the included map. 			

NOTE: A copy of this submission form MUST also be sent to Mighty River Power Ltd at:

Freepost – MRP
 Mighty River Power Ltd
 PO Box 445
 Hamilton 3240
 Attention: Stephanie Froggatt

Or email turitea@mightyriver.co.nz or fax (07) 857 0192

I/we have sent a copy of my/our submission to Mighty River Power Ltd as per Section 96(4) of the RMA.



Ministry for the
Environment
 Manatu Mo Te Taiao

New Zealand Government

*Lee Huffman, Submission on Mighty River Power Application
for Resource Consent for Turitea Wind Farm
22 February 2009*

To: Ministry for the Environment

**SUBMISSION ON MIGHTY RIVER POWER LTD
APPLICATIONS FOR RESOURCE CONSENT**

Under section 145 of the Resource Management Act 1991

My name is Lee Huffman, and my husband, Graham Devey, and I purchased our 14 hectare farm at 428 Pahiatua-Aokautere Road, Palmerston North in early 1990, when it was only bare paddock with 7 hectares of radiata pine plantation. It had always been my dream to move back onto a farm, having been raised on a dairy and grain farm in Ohio. So purchasing our land, in my husband's home town of Palmerston North, just two years after we got married, was the start of a very long journey. Graham and I started from scratch and first lived in a garage without running water or plumbing to now having a home large enough for our extended family, two boys, Lane 11, and Troy 14, and Graham's mother and partner. Graham designed and built our home (although we are still not finished) with energy-efficiency in mind. We have no indoor heating except solar, and Graham oriented the home to make best use of the sun and used Hebel aerated concrete for thermal mass. Our commitment of renewable energy is tangible when you visit our home.



This is our Huffman-Devey home in the hills at 428 Pahiatua-Aokautere Road, Palmerston North. When we bought this land in 1990, there was no power, no roads, and no flat land. Notice our solar panels; the only heating source for our home. We have planted over 200 native and exotic trees. Wind turbines, 125 metres tall, will be on this ridge line and on the slopes of the hills, dominating our home and farm.

Transition from a wind farm supporter to a concerned citizen

Given our commitment for renewable energy, I supported the original wind farms in the Manawatu when the original smaller wind turbines were installed. My position was that we all had to contribute to renewable energy and Manawatu was doing its share. This was the still case when the Te Rere Hau Wind Farm was being installed within about 2.5 km from our home. However, I have changed my view in the last 24 months as the numbers of proposed turbines has now jumped to 488 in the Manawatu and we can hear the Te Rere Hau windmills' gears grinding from our home, even with just ONE turbine operating. I have also witnessed the loss of a dream by one of our neighbors, as they were bought out by Te Rere Hau after the wind farm was constructed and they could no longer live in the home that they had built (which is the red-roofed home in the following photo). That neighbor's predictions on the unsuitability of wind turbines close to homes came true, even though the wind farm company at the time assured all of us local residents that the Te Rere Hau wind farm would have no impact on the locals.

We are about 2.5 km away from 27 turbines from the Te Rere Hau Wind Farm. These are the ones that we already see, and more are being built every day. (I took this picture on 21 November 2008, when there were 20 turbines on the hill.)

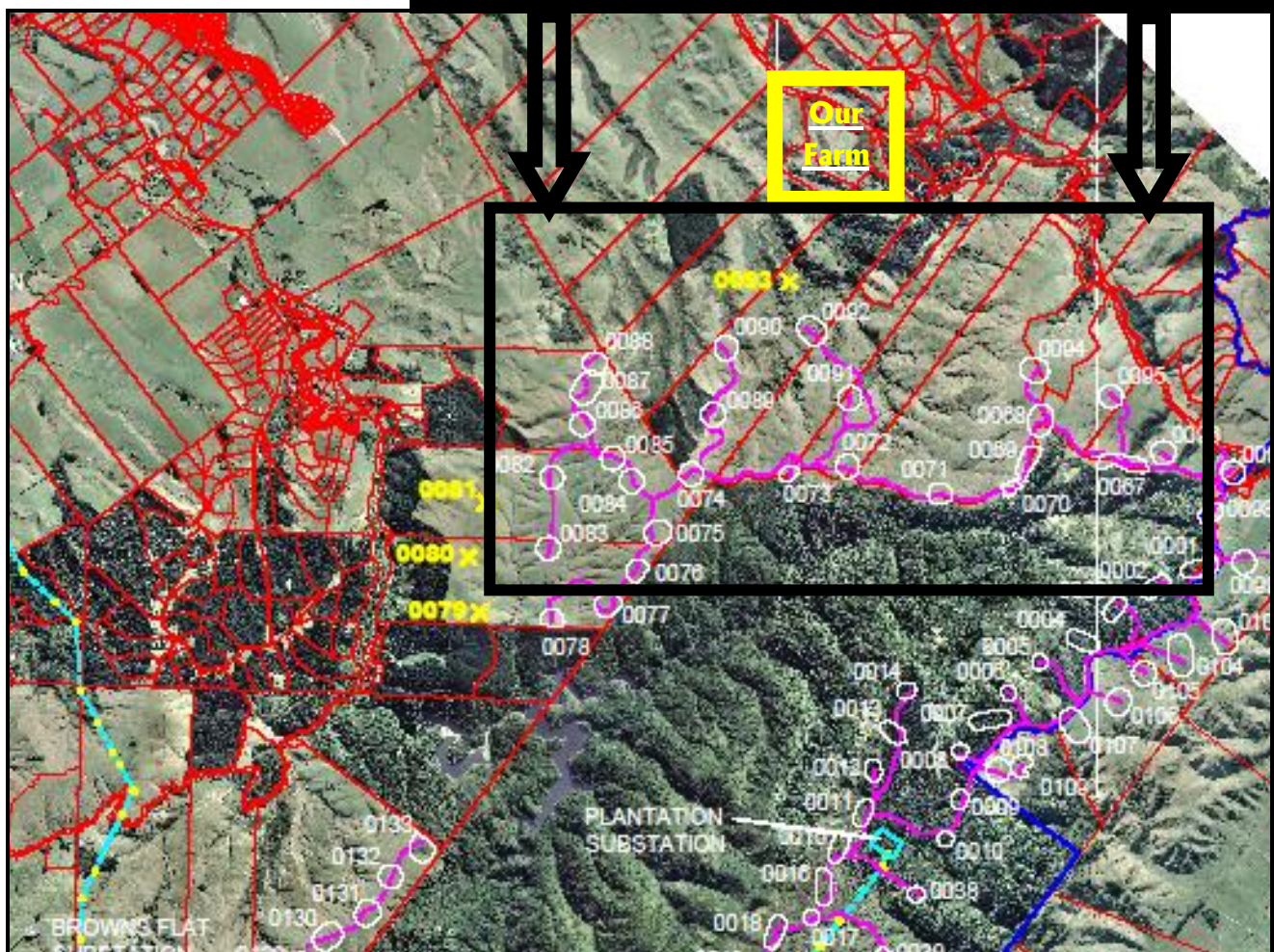


This is our current view of Te Rere Hau Wind Farm on the North Range Road taken from our driveway with our trees in the foreground. Even more wind turbines have been installed since I took this photo. These wind turbines only generate energy a fraction of the time, since most of the time they are not rotating, even when the wind is blowing. When they do rotate, in the more gentle winds, we hear the grinding of the gears and the whoosh sound of these wind turbines. These turbines are only 46 metre tall, a fraction of the 125 metre tall MPR proposed turbines. Imagine the new turbines that are almost three times the height on the hills south of our land.

How the Mighty River Power (MRP) Turitea Wind Farm will impact me and my family

Our farm is highlighted on this map, along with the wind turbines which will have the greatest impact on us from those in the Turitea Wind Farm proposal by Mighty River Power. We will be immediately affected visually, and most likely by noise, by at least 40 of the MRP wind turbines, with 22 turbines (numbers 67 to 78, 82, 84 to 92, and 94 to 96) within 1 km to 2.5 km from our home. Turbine 93 was so close (about 700 m) MRP has already removed it from the proposal.

22 Wind Turbines that we are most concerned about
Numbers 67 to 75, 82, 84 to 92, 94 to 96 (1 to 2.5 km)



Source of Map

Drawing Number: 0848-RK231 Rev. B

Title: SITE LAYOUT INCLUDING SITES NO LONGER PART OF THIS PROJECT

Project: TURITEA WIND FARM

Client: Mighty River Power

You can see where some of the wind turbines will be located from our front door.
(July 2008 photo after snowfall)



My best estimate is that we will see wind turbines 90 & 92 on the hills at about 1 km away, turbines 89 & 91 at about 1.5 km away and turbines 70, 71, 72, 73, 74, 87 & 88 on the ridge in our view of the Turitea Reserve bush 2 km away.



We would see up to 20 wind turbines, many within 2 km from this view from our farm. When we look to the distant hills, our sunset view will be clouded by up to 30 turbines on the near horizon.

It seems that our family and neighbors are at the intersection of the wind farm explosion that is continuing within our city boundaries. Right now it looks like there may be 50 wind turbines within 2.5 km of our home between the Turitea Wind Farm and Te Rere Hau Wind Farm.

I have a number of personal and community concerns with the Mighty River Power Application for Resource Consent under Section 145 of the Resource Management Act 1991:

My main concerns are for the **well being and health of my family**.

1. I love the hills and continually get pleasure from living in hills (having been raised in the flat Ohio farm country). I hate to think of losing that social amenity of the **natural landscape**. One of the reasons we moved out of the city is to have the peace of the countryside. We can hike over a number of trails on our land and our neighbor's, the Kells, to enjoy the hills, the native bush, the nearby waterfall, and the views over the Manawatu plain. We come home to relax and work on the farm after work and in the evenings. Those hill views will never be the same if they are covered with wind turbines.
2. The **visual pollution and accumulative effect** of at least 70 wind turbines, with the MRP wind turbines at 125 metres, will change the landscape for us forever. That doesn't take into account the inability to get away from wind turbines on the horizon in the whole of the Manawatu hills for the future. And what happens to these huge wind turbines when they have reached their 20-25 year life expectancy? What will happen if MRP or the other wind farms go bankrupt during these risky financial times?
3. At this stage, no one can tell what impact 70 turbines might have on **noise and vibrations, subsonic sound, and flicker** and the other more technical aspects of wind turbines and the person impact on each person. While measurements can be made with instruments, there is the subjective aspect of how each of us responds to the daily running of the wind turbines. One of the benefits of living on our farm is the peace and quiet of the country. That is about to change with the MRP proposal. **Our home is clearly within the 40dBA range** (reference Drawing No. 0848RK221 Rev B, S92 Attachment 14 – S94, Existing Swellings, as of Right Dwellings), which is a concern for me and my family. Noise is discussed in sections on noise from the MRP website, www.mightyriver.co.nz, and the models of noise and detection limits seem to be changing as well. I also noticed that MRP is asking for consent to NOT meet the noise requirements of the Tararua District Council.

But rather than rely on just reading about noise, my family and I have **visited the current wind turbine types within the Manawatu** and have noticed a wide range of sounds from the whish to the grinding of gears to the ping of loose parts rattling in the blades. When I asked MRP at the public day at the Convention Centre about noise and how is it monitored and managed, I got some very interesting (and concerning) answers.

As a PhD scientist trained in research and scientific literature review, I am also looking at **the peer-reviewed literature on wind farms**. (I am currently the Science Group Manager for Nutrition and Health at the NZ Institute of Plant & Food Research and have worked in research for over 30 years.) There is clearly some variation on the subjects of noise and vibrations, the recommended distances for wind farms and homes, economics, etc. Expert opinion statements of evidence for wind farms are even more variable. Very few publications or reports can address the numbers of turbines and closeness of turbines to homes that are being proposed in the MRP wind farm. The answers from MPR on research publications on wind farms were bit surprising. Has the Manawatu become the guinea pigs or canaries for these experiments?

4. I am also impacted personally with the extra stress from learning more about wind farms and making sure that the best interests of my family are not lost in this lengthy proposal process.

I also have concerns for the **larger community**.

5. I am concerned about the **safety on our road, the Pahiatua-Aokautere Road**, also known as the Pahiatua Track, during the construction phase of this project, which is projected to last for years. The safety record for the Pahiatua Track is on national record for concern. The blind turns and access around the North Range and South Range Roads is already dangerous and will be even worse with the increased traffic and the proposed construction to the Palmerston North City Council and Tararua District Council. We have seen how impatient drivers drive on our road, including when the Te Here Rau turbines are being transported, which are tiny by comparison to the Turitea Turbines. The road will be even more dangerous when the Manawatu Gorge is closed and traffic is diverted to the Pahiatua Track. My family is on that road daily going to work and school. Plus there are many bikers, including my son, who use that road for casual riding or training.
6. When I think beyond how my family might be impacted, I am concerned about the **stability of the land**. I have a concern on the construction of the turbines. We have logged our land and built roads in this clay. Slips are a real risk, even with replanting, which my husband has discussed in more detail in his submission. We get a huge amount of rain, and wind. What will happen to the reserve land when the bush is removed to build the huge concrete bases for the wind turbines?
7. We are always working to manage the soil that washes down our road and tracks in the frequent rain storms. This is particularly a problem when the soil has been disturbed. What will prevent sediment from building up in the **water supply at the Turitea Dam**? Over 60% of the city's water comes from the dam. The impact on the loss of the community water would be huge if the water quality or quantity would be lost.
8. My family and I also visited the Turitea Reserve when it was opened up by Council as part of the promotion of the MRP proposal to put wind turbines in the reserve. It was clearly evident at that time that there was the **potential for major disturbance of the native habitat** when building turbines, compared to just putting in the monitoring towers, which disturbed the environment more than I would have anticipated.

We are also regenerating our native bush gully on our farm, and we are seeing native birds, such as the kereru, the wood pigeon, returning to our land. I am concerned that putting the MRP wind turbines in the Turitea Reserve will destroy habitat that will set back the current growth of the native flora and fauna. I do not support putting wind turbines in native reserves. If we can't protect our few native reserves for the future, even less bush will be left for the future.

9. I have a major concern that there is **no national review or policy on renewable energy** and how wind farms can best be included for both local and national good. It appears that the focus is totally driven by economics of profitability, especially considering the vagary of carbon credits as part of the financial package. My concern is that all the factors have been considered, including the backup power that is

needed to be kept on tap when the wind turbines aren't producing energy at the needed rate. What about the variability of the power to the transmission lines? The wind doesn't blow all the time, and many times I observe the wind blowing too hard, so the turbines aren't working then either. The wind is extremely variable up here, and we should know, since we have lived here for years. The profitability depends on the mathematical models, which will be limited by the assumptions on the contours of the land. What is the error factor on all the economic estimates?

If this "Call In" can resolve the lack of a national policy on how New Zealand will meet its international obligations in an integrated, and long term strategy, the exercise will benefit the national interests as proposed. However, with the lack of that strategy and detailed business plan, the many individual reviews at only a local level, the process will continue to take the time and effort of many, many people at a huge cost of time and money. However, so far, the "Call In" seems to distance people and neighbors from each other rather than unite the local people supporting a well understood, New Zealand renewable energy plan.

Further on national policy...how can some regions, such as Auckland, be allowed to establish their hills as national icons, preventing wind turbines on those windy hills, compared to our ranges? Our hills and rivers were used as icons on a number of logos, including the New Zealand Dairy Research Institute's, before wind turbines came onto the picture.

10. I am concerned on how **Mighty River Power** has handled the consent process. MRP has not been able to supply information as they promised us in the time frames prior to this submission deadline. While we had pleasant personal and e-mail conversations with Mike Omer, the promised montages for our farm and the Kells' farm, never arrived in time, in spite of his e-mails saying "they were in the mail". Plus, we also discovered on the MRP website that our property, along with the Kells', is an isolated island among the consented land of our neighbors when we looked into the MRP website on "Attachment 14 of the s92 Responses to Requests for Further Information provided by MRP". That means all our neighbours east, west and south of us have signed up with MRP to allow them to use (probably lease) their land for this proposal. Furthermore, MRP has even commented that they are not sure exactly what type of wind turbines they plan to purchase from overseas manufacturers. What else on this proposal is still under consideration that might impact us directly?

Summary

I believe we have past the tipping point in the Manawatu for wind farms. The Turitea Wind Farm request by Mighty River Power goes too far with too many wind turbines, which are too large, with too many uncertainties. MRP has not made a balanced proposal showing that these 122 turbines can provide adequate renewable power for the national benefit to mitigate the impact on the environment and on the hundreds of families in the Manawatu. Our family is one of the 22 listed as being most impacted by this proposal. We totally agree with the MRP assessment that we will be affected directly, and are looking for reconsideration of the resource consent application for the Turitea Wind Farm.

I request that:

- 1) The Board of Inquiry does not approve the Mighty River proposal to build a new wind farm called the Turitea Wind Farm in the Manawatu, in its entirety.
 - a) If, in the interest of a National Renewable Energy Integrated Strategy, the Turitea Wind Farm, must go ahead, I request that wind turbines within 2.5 km of our home be removed (Turbines 67, 68, 69, 70, 71, 72, 73, 74, 75, 82, 84, 85, 86, 87, 88, 89, 90, 91, 92, 94, 95 & 96).
 - b) If, in the interest of a National Renewable Energy Integrated Strategy, the Turitea Wind Farm, must go ahead, I request that no wind turbines be built in the Turitea Reserve.
- 2) The Board of Inquiry recommends that the Government put a moratorium on all wind farms until a National Renewable Energy Integrated Strategy be completed.
- 3) I also request that I get the opportunity to present my concerns to the Board of Inquiry in person.
 - a) This will include some of the reasons why we returned to our farm after living in beautiful Sonoma Valley in Northern California to come back to our farm in the hills of the Manawatu. We can compare the California wind farms first hand to these in the Manawatu.
 - b) I'd like to describe to the Board how I work and live in this area that would be surrounded by the wind farms, should this proposal by MRP be successful. Let's visualize together what the surrounding will be like. Will my sons still want to build their homes on this land in the future as they currently believe they will, if the wind turbines are so close? What will the value of our land be for the future? Will our way of living ever be the same? When has our Manawatu region done enough for the national renewable energy goals?