

PCU031178



SUBMISSION

OBJECTION

SAPPHIRE WIND FARM

**SAPPHIRE
CLUSTER**

Department of Planning
Received
29 FEB 2012
Scanning Room

RL & HM Hewens

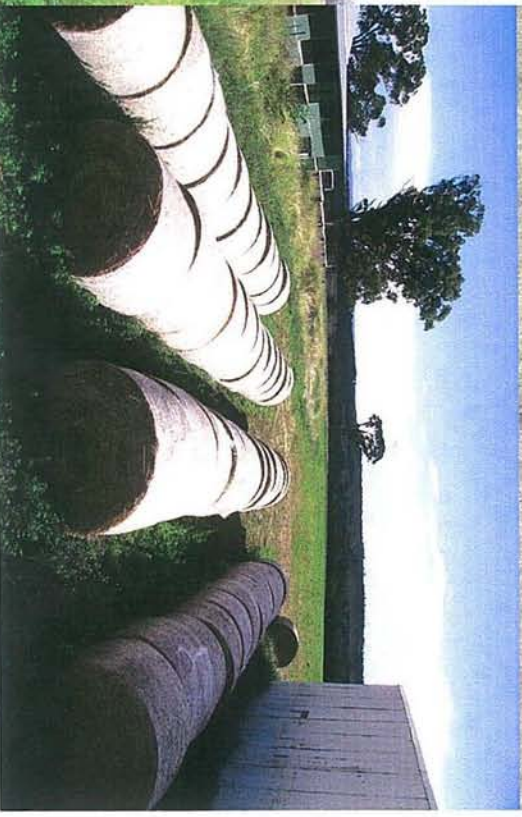
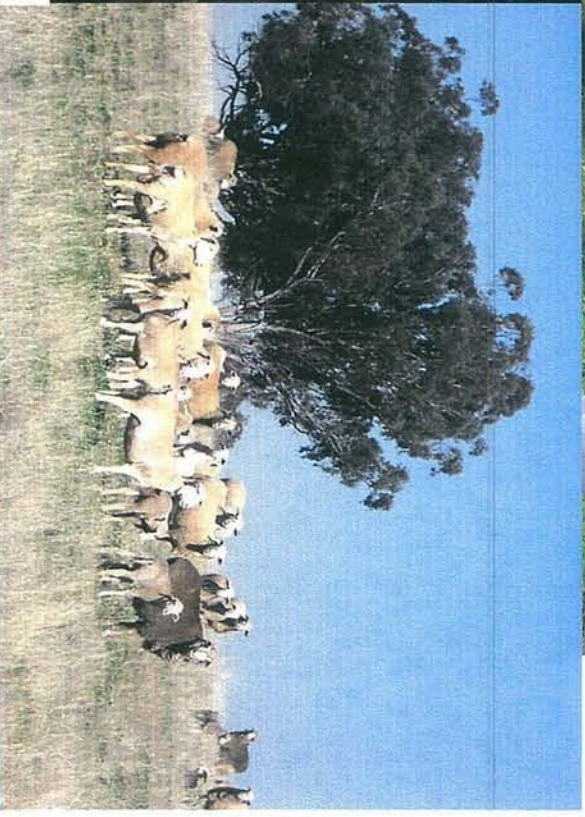
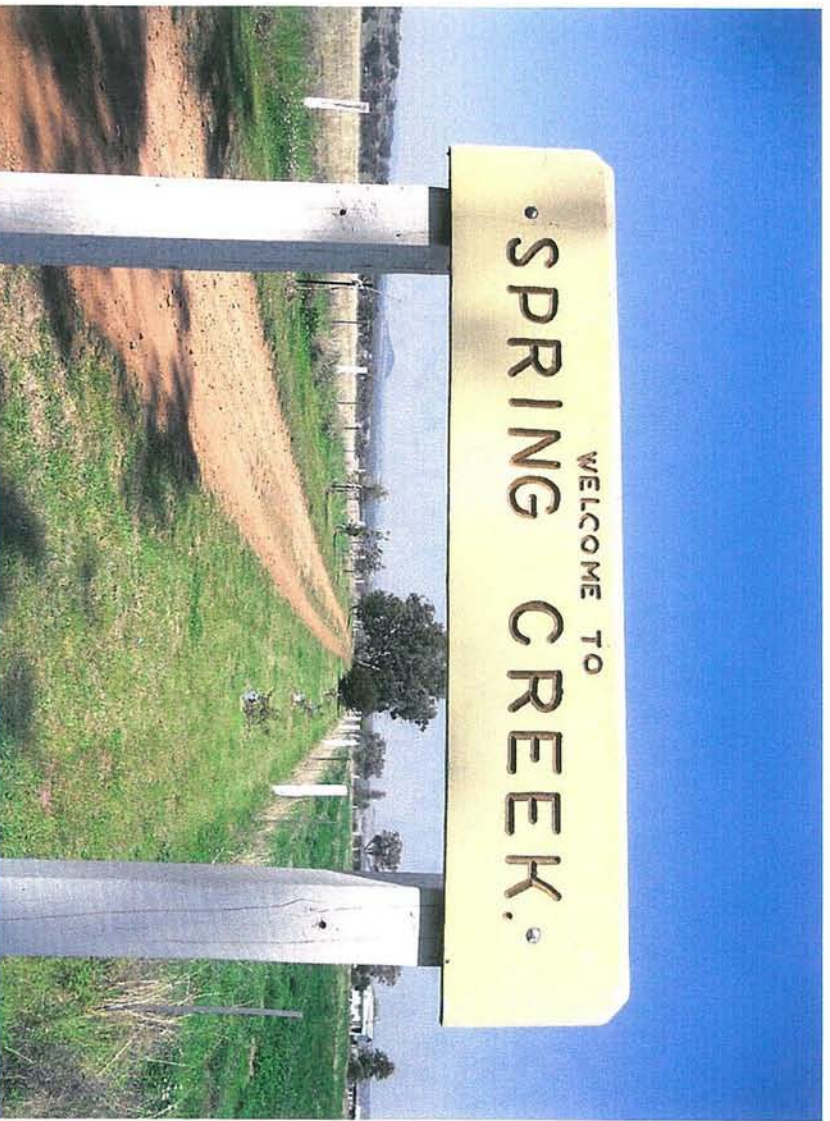
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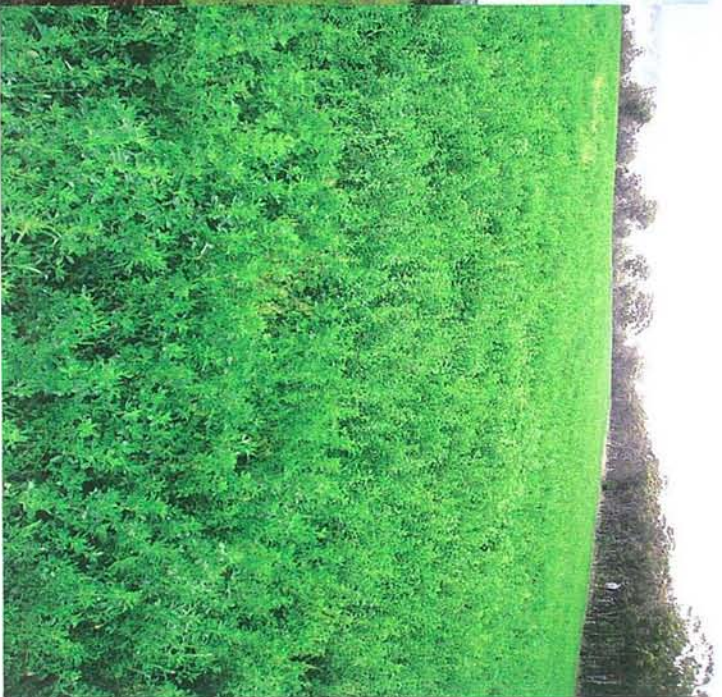
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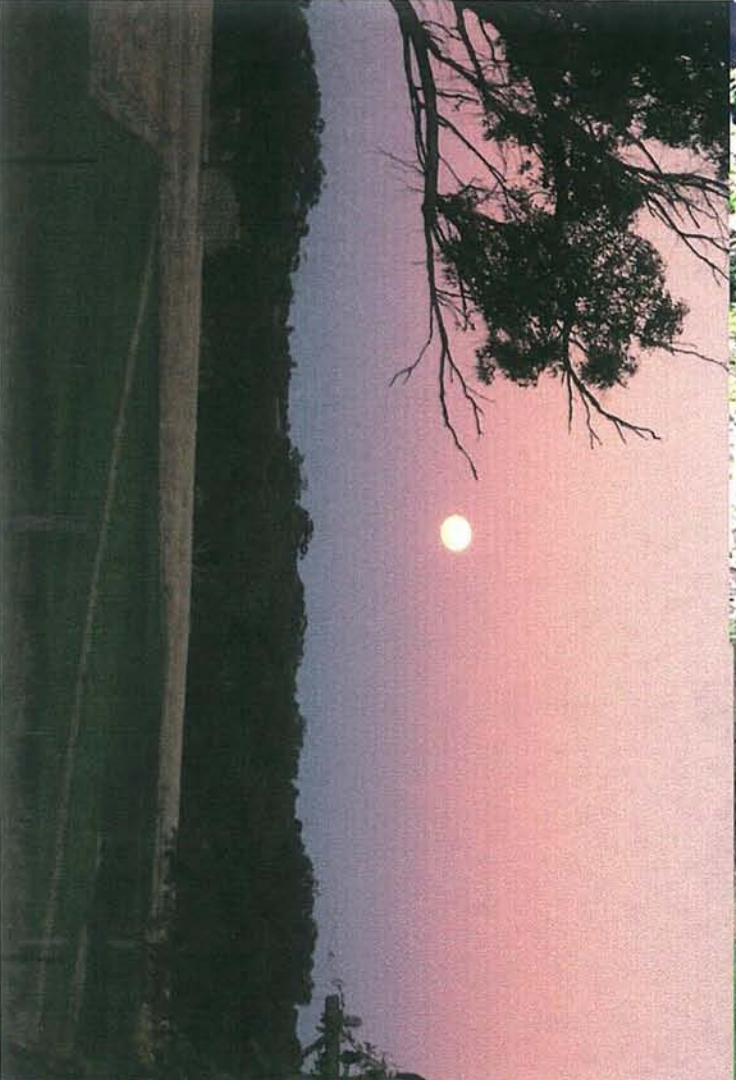
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NSW Department of Planning & Infrastructure
Attention: Mr James Archdale
GPO Box 39
SYDNEY NSW 2001

17 February 2012

Dear Mr Archdale

RE: SUBMISSION OBJECTING TO SAPPHIRE CLUSTER, SAPPHIRE WIND FARM
(Application Reference MP09_0093)

Please find enclosed our submission **objecting** to the proposed Sapphire Wind Farm, in particular the Sapphire Cluster.

This submission represents our feelings in relation to this proposed wind farm, together with extensive research worldwide, and how we believe it will affect us physically, emotionally, spiritually and financially.

We are not NIMBY's. We aren't against green sustainable energy, but we are against placing wind farms in areas where people's lives are going to be ruined. We believe that not enough research has been done in Australia, and industrial wind farms should be located in more appropriate areas. Wind farm developers will say they are abiding by current guidelines set out; we believe these guidelines are not adequate.

We are two passionate, hard working farmers who love the land. We have been on the land for over twenty years, almost four years on this property "Spring Creek". We commenced negotiations to purchase "Spring Creek" in April 2008, there was **no** suggestion that we could be purchasing land that would one day soon border an industrial zone; a wind farm.

Our property is not the big acreage of the host farmers associated with the Sapphire Wind Farm project, but a smaller Lifestyle property where we breed sheep for the fat lamb market, fatten cattle and grow lucerne hay for sale. We also have future ideas to develop a tourist business on the property; dependant on the proposed wind farm.

"Spring Creek" was a sad, neglected, run-down property when we purchased it. We saw potential in the over-farmed basalt soil, gates tied on with rope, and fences falling down; believing that with time, money and a lot of hard work we could restore the once good soil back to being viable, able to grow and produce quality pastures and stock. This is now happening, verified by good prices received for stock at market and for quality hay produced..

Through hard work we have earned the respect of the community. Many comments have been forthcoming from neighbouring farmers and stock agents, whose opinions we value, regarding the transformation of our property "Spring Creek". (See Appendix 1)

We had big dreams for "Spring Creek" and planned to work it until we were no longer physically able. But, with the proposed development of the Sapphire Cluster, Sapphire Wind Farm those plans

have been put on hold; we have no surety and Wind Prospect CWP Pty Ltd will not give a guarantee that their development will not harm us in any way. Our sin, is that we are adjoining neighbours to "Tralee" and "Derra Downs", both large properties who are proposing to host wind turbines; and for that we have to pay. (See Appendix 2)

Wind Prospect CWP Pty Ltd had their development plans for Sapphire Wind Farm well underway before they held their Open Days at Glen Innes and Inverell, and before we understood the magnitude of what this development would mean to us and our future.

In hindsight, we now know the host landholders were all aware of what was going on, but we as adjoining neighbours were 'left out of the loop'. It would appear that we didn't matter and were not important enough to warrant any type of consultation, we were actually an impediment.

In recent months we have endeavoured to negotiate, in good faith with Adrian Maddocks representing Sapphire Wind Farm Pty Ltd, owned by Wind Prospect Group and Wind Continental Partners, to purchase our property "Spring Creek". Both parties agreed on a purchase price for "Spring Creek" and we requested Sapphire Wind Farm give us a reasonable completion date before we signed a contract.

Wind Prospect CWP Pty Ltd state on their web site (www.sapphirewindfarm.com.au/construction) that *"the construction of a typical Wind Prospect wind farm is completed within 12 to 18 months"* !!!

Wind Prospect CWP Pty Ltd would not commit to a time span as to when the Sapphire Cluster would commence stating it could be within 5-25 years or **IF** it happens at all and the agreement to purchase our property must be linked to the construction of the Sapphire Cluster. **Realistically, we won't be alive in 25 years when the proposed agreement, on their terms is due to expire.**

We believe a 25 year agreement would be prohibitive, not allowing us to lease the property or use it as security for up to 25 years. It would restrict us making any significant improvements or change in use to the property e.g. feedlot sheep, chaff manufacturing mill, tourism or holiday stay. In reality we would be tied to the wind farm developers for 25 years or until the Sapphire Cluster is built.

We asked Wind Prospect CWP Pty Ltd for a Director's Guarantee, believing this was normal commercial practice in this type of agreement; they stated under no circumstances would the Directors consent to this clause.

With no time span as to when the sale of our property was likely to occur and no Director's Guarantee we were left with no option, but to walk away from the negotiations with Wind Prospect CWP Pty Ltd.

At aged 62yrs and 66yrs we need surety and the wind farm developers are not prepared to give it.

When you read our submission we ask that you do so with an open mind, and put yourself in our shoes. We are important and deserve to be heard, even though we have been made to feel that we and our property "Spring Creek" do not matter this is our home.

Please delete the Sapphire Cluster from the proposed Sapphire Wind Farm development project, we do not want to live next to a wind farm..... it will destroy our souls.

CONSULTATION PROCESS

Wednesday, 13 May 2009 a representative of Wind Prospect visited our property, left information in relation to the proposed Sapphire Wind Farm. It was all "airy fairy"... no further communication !!

Approximately 3pm, 18 January 2011 Lloyd observed two persons standing at our northern boundary fence, adjacent to Kings Plain Road. Lloyd beckoned and waved thinking the persons were looking to

buy fresh, baled lucerne hay that lay in the paddock near where they were standing. Adrian Maddocks, Senior Development Manager of Wind Prospect CWP Pty Ltd walked to our residence and introduced himself, explaining they were taking a photograph for a photomontage for the proposed Sapphire Wind Farm development. He told Lloyd that there would be two open days - Inverell and Glen Innes early February 2011, after discussion Lloyd told him we would definitely attend. We were worried.

On 2 February 2011 we attended Wind Prospect CWP Pty Ltd Open Day at Glen Innes and were **shocked** to see a photomontage showing our property and residence and a predicted view of **56** wind turbines, the closest being **1.75km** from our residence (**Sapphire Wind Farm EA Volume 2 Figure 8:15 Photomontage Location PM7, Kings Plain Road**). To say we were **devastated** would be an understatement.

Walking around the display of maps and photomontages for the proposed Sapphire Wind Farm, and listening to conversations between employees of Wind Prospect CWP Pty Ltd and members of the public it became apparent to us that consultation with host properties had been going on for some considerable time prior to the day in Glen Innes. Yet, no one had bothered to address the issues of a proposed wind farm with us. The message came through loud and clear; we were of no importance.

We instigated a private discussion with Adrian Maddocks at Glen Innes on that day re Sapphire Wind Farm and the situation we now found ourselves in; various issues were put forward by us and Adrian verbalised a positive outcome. We asked for an urgent meeting at our property to discuss our concerns. Several phone calls and emails later (**Sapphire Wind Farm EA Volume 3 Appendix_05_Stakeholder_Consultation_EX_WEB.pdf p.11, p. 61-62**). Adrian Maddocks met with us at our residence on Thursday morning, 10 March 2011..... 5 weeks later.

We had what we thought was a meaningful discussion re our concerns, and issues arising from the proposed turbines to be built in close proximity to our residence, on the neighbouring property "Tralee" which would be part of the Sapphire Cluster, Sapphire Wind Farm. We were **emphatic** that we did not wish to live next to a wind farm. Adrian Maddocks verbally suggested we could possibly come to a mutual agreement with Wind Prospect CWP Pty Ltd, they purchasing our property "Spring Creek" when construction began on the Sapphire Cluster, Sapphire Wind Farm. Adrian said, "We have to be seen to be looking after you !"

Whilst here Adrian Maddocks promised to send a copy of the high -res photomontage that we had viewed at Glen Innes Open Day, it arrived 6 May 2011.... almost 2 months later.

Lack of consultation between ourselves, and Wind Prospect CWP Pty Ltd during the four month period, after the March meeting at our residence created intense worry and stress due to uncertainty surrounding our future. Adrian Maddocks did verbally apologise saying "he was sorry if we felt we had been neglected". We felt we had.

Consultation increased in the weeks before Wind Prospect CWP Pty Ltd lodgement date of the development application, for the proposed Sapphire Wind Farm to NSW Department of Planning & Infrastructure. Time was running out and there was a note of urgency.

Adrian Maddocks asked for permission to take a new photo on Tuesday, 2 August 2011 from the rear of our residence looking east towards the proposed wind turbines site on "Tralee", for a new photomontage. We asked "why" and he said he had been advised to do so as part of his EA; we asked for a copy to be sent. We received a high-res copy of the new photomontage, 19 August 2011 which states visible turbine numbers are **now 113** with the closest turbine now **1.80kms** from our residence. There was **NO consultation with us**, again. We thought a change from **56 to 113** wind turbines, an increase of **100% plus** would be worthy of discussion. (See Appendix 3)

We note that the photomontage taken 2 August 2011, on Public Exhibition as part of the Sapphire Wind Farm EA report shows **60 wind turbines** visible from our residence (**Sapphire Wind Farm EA Volume 2 Figure 8:16 Photomontage Location PM7A, Spring Creek**)

So, what is it 56, 60 or 113 wind turbines visible from our residence ????

Sapphire Wind Farm web site, under their heading Consultation state "*We consult with all relevant affected parties early on in the process.*" (www.sapphirewindfarm.com.au/process/development/consultation). We **strongly disagree** with this statement. We were **never** told what impact it would have on us or our property and it was only by chance that we stumbled upon the truth. Consultation was initiated by us **not** Wind Prospect CWP Pty Ltd.

We note the Church Communities Australia (CCA) Danthonian community's main facilities and buildings are approximately **8km** west to south west of the Project and the Swan Vale Cluster (**Sapphire Wind Farm Environmental Assessment, Volume 1 Chapter 6 - Stakeholder Consultation, page 112**). **AND**, because CCA engaged their own landscape consultants to prepare a LVIA of the Sapphire Wind Farm Project the Proponent **REMOVED 22 turbines** from the wind farm site. It was " *a proactive measure to address CCA concerns* ."(**Sapphire Wind Farm Environmental Assessment, Volume 1 Chapter 6 - Stakeholder Consultation, page 113**).

Wellingrove community objected to wind turbines that were a distance of 3km away, with the closest turbine being 2km from the nearest residence. After a photomontage was taken "*the Proponent opted to remove them from the Project design.*" Four turbines were removed from the plan.

" *The closest turbine was now 3.6km from the community.*" (**Sapphire Wind Farm Environmental Assessment, Volume 1 Chapter 6 - Stakeholder Consultation, page 113**).

It is obvious that CCA and the Wellingrove Community had plenty of consultation: they had the numbers. And, it is also apparent to us, that because we own a Lifestyle property and are only two persons we don't matter in the whole scheme of things.

VISUAL IMPACT

The siting of **113** wind turbines south east of our residence, by Wind Prospect CWP Pty Ltd, Sapphire Wind Farm **WILL** visually impact on us and our property dramatically.... this is a **major** concern. The closest turbine to be located **1.80km** east of our existing residence. The aesthetics and ambience of our property will be ruined.

The views east and south from our east facing verandah, which we use daily as an outdoor room, will have our beautiful landscape of ridges and hills destroyed by the presence of 113 unattractive wind turbines..... this equates to 71% of total wind farm turbines!!!

The Sapphire Wind Farm EA Volume 3 Appendix_07_LVIA_EX_WEB_Pt1.pdf, Figure 23, shows our property "Spring Creek" as R26. Page 61-62 (same reference), Table 17 - Residential View Location Matrix (Sapphire Wind Farm turbines) - R26 View Location sensitivity **HIGH** and Overall Visual Impact for '80m' and '110m' layouts - **HIGH**.

We do not consider wind turbines to be aesthetically beautiful or elegant. We do not "... *find the motion of the slow-turning blades to be peaceful and feel that wind turbines make a positive contribution to the landscape*". (www.sapphirewindfarm.com.au/process/development/aesthetics). We will be looking at **113** of these monstrosities from our back verandah and garden every day, 7 days a week the area where we socialise and entertain our friends. Our beautiful vista **will be** marred by ugly "windmills" towering down on us and our property; and the ambience of our property will be gone!

Lloyd is an amateur astrologer and requires a night sky that is unhampered. We expect the proposed turbines to have aviation lights on them due to our close proximity to Inverell and Glen Innes airports. This will eliminate any astrological viewing in that direction. ... our night sky will be visually impacted.

Wind Prospect CWP Pty Ltd photomontage of our resident and property "Spring Creek" quotes the proposed wind turbine blade tip height as 147metres. I draw your attention to the document, *Inverell Shire Council Development Control Plan - Wind Power Generation 2009*.

2.2 - Planning and Environmental Control, p.10. (See Appendix 4)

f) *"Where visible from a non-related dwelling or immediate surrounds, the development shall not be located 15 times the blade tip height or 2 km's (which ever is the greater) of any dwelling not associated with the development". "Where turbines are proposed to be significantly higher than such properties/dwellings of where the turbines will dominate the immediate view from the dwelling or dwelling lot, increasing these separation distances is recommended."*

This means that under Inverell Shire Council guidelines the wind turbines **are** too close to our existing dwelling.

This brings us to another issue. There is an old house site on our property with electricity and septic in place, along with a good orchard and would be **closer** to the proposed wind turbines we are objecting too. Our calculations on Google Earth suggests that this old site would be approximately **1.42kms** from the nearest wind turbine. We had thought that in the future we would build a new house on this old site. If Sapphire Wind Farm, Sapphire Cluster is built then our dreams of a lovely new home will be just that DREAMS.

NOISE

We **strongly** believe that noise will be a problem for us, living within close proximity to the proposed wind turbines. Our residence faces east, south-east and we will look straight into the blades of the proposed wind turbines. Also, we will be in a direct line behind the towers when the dominant easterly winds blow sending noise and vibration directly at our residence.

Of four different turbine models presented and analysed by Sapphire Wind Farm three models actually state "Spring Creek" EXCEEDS the acceptable noise levels. (Sapphire Wind Farm EA Volume 3 Appendix_09_Noise_Impact_Assessment_EX_WEB.pdf, pages 56-57).

We are both in good health and we want, and need to keep it that way. It will be too late for us, once the wind turbines are built.

Our concerns are for the extremely low frequency sound waves emitted by wind turbines that vibrate through the air causing all terrible types of illnesses. These sound waves seem to be at the core of the problem and we believe that there hasn't been enough research done in Australia to refute the wind developer's blurb of them complying to the guide lines set out.

Our research leads us to believe that there are major health issues associated with wind turbines. A look at web site Wind Turbine Syndrome (www.windturbinesyndrome.com) will show what is happening all over the world, not just in Australia. it can't **all** be false.

We have read Green and Ribnick Report *Adverse Impacts From Wind Turbines in Waubra, Australia and Surrounding Areas*, 9 February, 2011, by G. Ribnick and Lilli-Ann Green. (See Appendix 5) Then there are the medical fraternity that have documented what they have seen in their patients who live within close proximity to wind turbines. In Australia we have Dr Sarah Laurie, Dr David Iser, Dr Andja Mitric-Andjic, Dr Max Whisson, Dr Wayne Spring, and overseas Dr Amanda Harry (UK), Dr Chris Hanning (UK), Dr Mauri Johansson (Sweden), Dr Michael Kirshenbaum (USA), Dr Nina Pierpoint (USA), Dr Robert McMurtry (Canada) and forty other physicians in Quebec, Canada who have petitioned the Quebec government to do proper health studies. (www.windturbinesyndrome.com)

After much consideration and many months researching this topic we believe there are far too many people all over the world who are suffering serious illnesses as a result of wind turbines being built too close to residences. **We do not wish to join them and become another statistic.**

EFFECTS ON AGRICULTURE

The proposed construction of Sapphire Cluster, Sapphire Wind Farm we believe will be detrimental to our land. As beef farmers, fat lamb and lucerne hay growers our concerns are not knowing what effect the wind turbines (**113 of them**) will have on our pastures, cattle, sheep and crops.

How will this development impact on bird life in the vicinity of our property? Bird life is of major importance in agricultural bio-diversity. We have planted over 500 native trees and shrubs in the last year as windbreaks and to create bio-diversity. The results already becoming apparent as we notice the dramatic increase in numbers and new species of birds.

This brings us to the question of the Dung beetle (enviro-beetle). How will wind turbines affect dung beetles and pasture pollution? We cannot stress enough the importance of dung beetles in agriculture.

1) They reduce Buffalo fly populations which are detrimental to cattle. 2) Reduce bush fly numbers. 3) Reduce nutrients entering the water system, as pollution. 4) Reduce pasture contamination. 5) Increase nutrient cycling at the plant root zone. 6) Increase water infiltration. 7) Improve soil fertility. 8) Reduce some insect-borne human and livestock diseases. Dung beetles detect dung by smell and fly in pursuit of fresh dung.

What studies have Wind Prospect CWP Pty Ltd conducted to ensure our dung beetle population will not be adversely affected by wind and vibration, created by the wind turbines of the proposed Sapphire Wind Farm? Remembering, that dung beetles operate and find their dung by plume and swarm when moving from one area to another.

We recently attended a Field Day conducted by GWYMAC Landcare called "Striking The Balance" at Gravesend where guest speaker Beth White, representing the Northern Tablelands Dung Beetle Express (www.dungbeetles.org.au) gave an informative presentation as to the importance and value of this humble species. She stated there were worrying concerns as to the affect wind turbines were having on dung beetles and the dung beetle population, considering the large number of wind turbines being erected on the Northern Tablelands. We note that Ms Beth White submitted a submission to the INQUIRY INTO RURAL WIND FARMS 21/8/2009 (See Appendix 6)

Bees - native and commercial. What studies have Wind Prospect CWP Pty Ltd done in relation to the affects wind turbines are going to have on both species of bees? How will this affect the essential pollination of our land and pasture, and commercial apiarists?

Native bees pollinate pastures and native vegetation, are easily frightened and do not like being disturbed. Will wind turbines disrupt the native bees cycle, to the detriment of our pasture?

Almost four years ago we purchased "Spring Creek" and since then we have allowed a local apiarist to lodge large, commercial numbers of bee boxes on our property for many months at a time. We are aware both host properties "Derra Downs" and "Tralee" also have apiarists working from their properties. Again, we ask how will wind turbines affect the livelihoods of these commercial apiarists?

Weeds. Our concerns are for those noxious plants whose seeds are distributed by air e.g. African Lovegrass, Serrated Tussock, Saffron thistle, Nodding thistle. Are we going to find that wind turbines cause invasion to our pasture by distributing invasive and noxious seed species? These weeds present a threat to our agriculture sustainability and to natural habitat

LAND DEVALUATION

We do not believe that it is fair or just for our land to be devalued, because Wind Prospect CWP Pty Ltd build a wind farm on the adjoining properties "Tralee" and "Derra Downs". Commonsense tells us our property will most **definitely** be devalued.

To say that our land will not devalue is, we believe a furphy and a misleading statement put forward by wind farm developers, including Wind Propsect CWP Pty Ltd. I ask "Would you pay to look at, and listen to 113 wind turbines 24 hours a day, seven days a week or would you demand to pay a reduced price?" The answer is obvious. The reason there is no evidence of land being devalued in areas that already have wind farms is because properties cannot be sold and there is no data or paperwork to show devaluation. Wind farm developers are quick to tell you that there is no evidence that land devalues, quoting NSW Valuer General's report. Maybe there is actually an increase in land values of host farmers with larger properties, due to the increase in income they will generate as a result of hosting wind turbines. Their property land value goes up and our Lifestyle property land value goes down !!!

After reading PRELIMINARY ASSESSMENT OF THE IMPACT OF WIND FARMS ON SURROUNDING LAND VALUES IN AUSTRALIA a report commissioned by NSW Valuer General August 2009 and prepared by Duponts/PRP Valuers And Consultants we note that there is **NO** definitive answer to the question proposed. Duponts/ PRP analysed seven reports covering Denmark, two in US, UK, Australia (Crookwell, NSW), Australia (Waubra, Victoria), Australia (Victoria).

We draw your attention to **page 8:- 3.1.6 "Wind Farms; The Local Experience" - Hives (2008) - Australia**. This report states "*Some detrimental effects were evident on lifestyle properties*".

"Hives 2008 concluded that lifestyle values had the greatest potential to be affected as a large part of their value is typically derived from the aesthetic qualities of the surrounding environment." (See **Appendix 7**)

OUR PROPERTY IS A LIFESTYLE PROPERTY (265 acres) NOT THE BIG ACREAGES OF "TRALEE (3,000 acres) AND "DERRA DOWNS" OR THE OTHER PROPOSED HOST LANDHOLDERS !!!

Then **page 9:- 3.1.7 "Negative Affects to Property Values near Wind Farm Developments in South Gippsland" - Jess (2008) - Australia**. We quote "*In a separate presentation at the API Country Conference Jess (2008) presented a range of sale transactions that had occurred at the Toora wind farm in south east Victoria. The sales transactions indicated that the wind farm developer had been purchasing surrounding properties following planning approval and completion. Also, a sales transaction of a 'lifestyle' property which sold both before and after the construction of the wind farm was presented. It was estimated that the sale after the construction of the wind farm was approximately 30% below the market value of the property had the wind farm not existed.*" (See **Appendix 7**). **Note 30% !!!**

Page 14:- 4.2.1. Rationale. "*The availability of sale data for analysis was limited as much of the wind farm development that has occurred to date has been in remote and/or farmland areas with low population densities and a corresponding small number of property sales. This limited the scope for statistical analysis.*" Unquote. (See **Appendix 7**)

Martin Heintzelman, Assistant Professor, Clarkson University of Business USA released a paper *Values in the Wind: A Hedonic Analysis of Wind Power Facilities* March 3, 2011. This document was not funded by wind proponents or opponents and therefore is more reliable in it's findings. Heintzelman used data on over 10,000 properties sold over a nine year period in Northern New York to try and determine what effects wind facilities had on property values. "*We use a repeat-sales framework to control for omitted variables and endogenetic biases.*" His conclusion was that property values do decrease, sometime up to 15% and even as high as 35% (Table 9, p.37). See **Appendix 8**

A news article dated 30 April, 2011, by Valerina Changarathil - Renewable power 'a blow to the land' on web link www.news.com.au/bitter-blow-to-the-land/story-e6frede3-1226047254644. We quote "*Northern SA resident Tania Neville said there was a 30-50 per cent decrease in land values with a local Elders real estate agent saying turbines on or near a property had the same effect "as piggeries, high voltage power lines, sewerage plants and rubbish tips"*". (unquote) **Enough said.**

Lloyd worked in the woolshed of a farmer who is a proposed host of the proposed Sapphire Wind Farm development. The farmer has put his large property "Carinya" on the market. Working in the woolshed Lloyd was privy to a conversation between the farmer and his local real estate agent; the agent told the farmer that if he wanted to sell his property the farmer needed to do so **before** the wind farm was built. The wind farm developers will tell you that the agent is scare mongering, but we believe it suits the developers to think that way how else can developers justify what they are doing to farmers and their livelihoods. The farmer's property went to auction 29 September 2011 and there was **not** a bid; to date it is still unsold.

Another property, "Tauranga" which will be affected by the proposed Sapphire Wind Farm has decided to sell they had interested purchasers, but as soon as the purchasers heard about the proposed wind farm they told the owner to let them know if the wind farm fell through and then, they the prospective purchasers might be interested!!

FIRES

The same news article quoted in Land Devaluation - Renewable power 'a blow to the land' states, and I quote "*Some believe wind farms pose a risk of bushfire due to "vast quantities of flammable gear oil" used by the wind turbines. At least three fire incidents had been reported at existing wind farms since 2006 - at Star Fish Hill, Cathedral Rocks and Lake Bonney.*" (unquote)

Bush fires are a concern as the proposed Sapphire Wind Farm development would be situated not far from densely forested areas including 5kms from Kings Plain National Park. The closest Sapphire wind turbine being "*around 4km*" from Kings Plain National Park (**Sapphire Wind Farm EA Volume 3 Appendix_07_LVIA_EX_WEB_Pt1.pdf, page 19**).

COMMUNITY

We now address the social problems of splitting communities, created by the development of wind farms. For us at "Spring Creek" it is a David and Goliath situation and you guessed it, we are David and the proposed host wind farm landholders and the Proponent are Goliath. As far as we know, we are the only property that will be adversely affected by the building of Sapphire Cluster, Sapphire Wind Farm.

Lloyd working in the shearing shed at "Yarrandoo", another host landholder was invited to attend a meeting of host landholders and their solicitors. Lloyd declined thinking it wasn't appropriate. The next day in the shed it was said "just as well you didn't go to the meeting, you wouldn't have been made welcome." One host landholder said (referring to Lloyd) "don't worry about him, he's not important."

A neighbour host landholder having a conversation with Lloyd commented, "They don't care about you, the development will go ahead anyway, it is Part 3A and already stamped. "

We have been made to feel outsiders and that we do not matter. We aren't able to discuss the proposed wind farm development with anyone, because we are the outsiders who may upset the host's "apple cart".

We feel it important to submit a relevant news article discovered during our research, because of it's near location to us. It relates to persons affected by the proposed White Rock Wind Farm near Glen Innes. The article is - A fourth wind farm proposed for Glen Innes by Joanna Woodburn, ABC Rural, www.abc.net.au 30 May 2011. Quoting from this report:-

"Robert Keough farms nearby and says he does not support the wind farm.

'No the first thing I heard about this was from my neighbour, who is hosting the towers, rang me up and said I'm going to get the money and you're going to have to look at the towers.' he said.

"My wife is beside herself."

"She hasn't slept for a couple of nights, it's putting a strain on our marriage." (unquote)

Then there is another article, this one by George Popadopolous, Pharmacist (www.windturbinesyndrome.com/news/2011/we-were-compelled-to-leave-the-site-due-to-severe-nausea-Australia/) in his letter to politicians Jillian Skinner and Brad Hazzard he tells of two elderly ladies who have been suffering quietly for years. *"I asked one of these ladies why she hasn't taken the matter further - why she isn't discussing the matter with the locals. Well, surprisingly, the locals have ostracised her for making comments that might affect the tourist business in Crookwell. So she decided to shut up and suffer, or otherwise become a social outcast."*

It needs to be noted that the proposed host of "Derra Downs" is an absentee landlord, there are no persons residing on this property, and the proposed host of "Tralee" has stated that he will just pack the family up and move to town !!! It is morally wrong.

Wind farms do divide communities! Developers will disagree, but they don't live in the communities that are being divided by jealousy and the mighty dollar. God help anyone who dares to voice their opinion if it doesn't agree with those who are benefiting. Injecting capital into the community via community programmes ensure the wind farm developer becomes the 'good guy', camouflaging what it is doing to the landscape and unsuspecting landholders.

OTHER

We had future plans to develop a site on our property which contains ruins believed to be a Cobb & Co changing station and wine shanty. The ruins are situated a short distance above an idyllic Fraser's Creek and our thoughts were to make the area into a tourist attraction to generate income. We fear the proposed turbines for "Derra Downs", which are part of the Sapphire Cluster, Sapphire Wind Farm will be much closer to the ruins than the distance between "Tralee's" closest turbine and our residence (1.80kms). If the Sapphire Cluster development goes ahead then those plans will have to be eliminated as there is no way we could run a tourist business in or around that site; more financial pain for us.

CONCLUSION

We both have endured many sleepless nights, pressure on our marriage caused by the lack of consultation, worry, stress and strain of the proposed Sapphire Wind Farm development, not to mention of how we feel regarding our place in our community. We are human beings not machines.

There is no surety from Wind Prospect CWP Pty Ltd that the development of the Sapphire Cluster, Sapphire Wind Farm will not cause us harm; physically, emotionally or financially. We are adjacent residents and no consideration for our well-being has been taken into account by the developers.

We purchased our property "Spring Creek" because we wanted to live in harmony with the land and enjoy the rewards of working hard for a sustainable living.

We have tried to negotiate with Adrian Maddocks representing Sapphire Wind Farm Pty Ltd, owned by Wind Prospect Group and Continental Wind Partners to purchase our property, but they will not give a commitment as to when the Sapphire Cluster will be builtanything from 5-25 years or if it happens at all; they insist that the purchase agreement must be linked to the construction of the Sapphire Cluster.

Their online website www.sapphirewindfarm.com.au/milestones states, and I quote:

“Start of construction : Expected Early 2013

The standard construction time is estimated to be between 12-18 months.

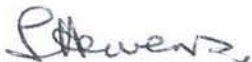
Construction completed : Expected Late 2014

After the construction phase is completed the turbines are connected to the grid and all electrical systems are tested. The wind farm is then cleared for operation and will start to generate electricity.” (Unquote)

If the timeline on Wind Prospect CWP Pty Ltd’s online website is to be believed and they are telling the public the truth, there should be no reason why the Proponent does not agree to a contract for a fixed term to purchase our property; we are prepared to sell to them at the agreed purchase price already negotiated.

Thank you for taking the time to read our submission **OBJECTING TO** the proposed Sapphire Cluster development of Sapphire Wind Farm, by Wind Prospect CWP Pty Ltd. We hope that it will give you an understanding of why we ask that the development of the Sapphire Cluster, Sapphire Wind Farm be **NOT** approved. Siting **113** wind turbines in close proximity to our residence is harmful and we believe breaches a fundamental duty of care.

Yours faithfully



Richard Lloyd Hewens

Yours faithfully



Helen Margaret Hewens

REFERENCES

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4. www.sapphirewindfarm.com.au/milestones
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8. www.news.com.au/bitter-blow-to-the-land/story-e6frede3-1226047254644
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11. PRELIMINARY ASSESSMENT OF THE IMPACT OF WIND FARMS ON SURROUNDING LAND VALUES IN AUSTRALIA, NSW Valuer General, August 2009
12. *Values in the Wind: A Hedonic Analysis of Wind Power Facilities* by Martin Heintzelman, Clarkson University, March 3, 2011
13. Sapphire Wind Farm Environmental Assessment Volume 1 Chapter 6 Stakeholder Consultation, pages 112-113.
14. Sapphire Wind Farm EA Volume 2 Figure 8:15 Photomontage Location PM7, Kings Plain Road.
15. Sapphire Wind Farm EA Volume 2 Figure 8:16 Photomontage Location PM7A, Spring Creek.
16. Sapphire Wind Farm EA Volume 3 Appendix_05_Stakeholder_Consultation_EX_WEB.pdf page 11, pages 61-62
17. Sapphire Wind Farm EA Volume 3 Appendix_07_LVIA_EX_WEB_Pt1.pdf page 19
18. Sapphire Wind Farm EA Volume 3 Appendix_07_LVIA_EX_WEB_Pt1.pdf Figure 23
19. Sapphire Wind Farm EA Volume 3 Appendix_07_LVIA_EX_WEB_Pt1.pdf Table 17 pages 61-62
20. Sapphire Wind Farm EA Volume 3 Appendix_09_Noise_Impact_Assessment_EX_WEB.pdf pages 56-57

APPENDICES

WEDGETAIL CATTLE CO. PTY LTD. Trading as
ALEX JOHNSTON & CO.

ABN 86 504 618 153

LICENCED STOCK & STATION AGENTS
8 EVANS STREET, P.O. BOX 211, INVERELL, N.S.W. 2360

Phone: (02) 6722 1788, (02) 6722 1295
Fax: (02) 6722 5352
Email: alexjohnstonco@northnet.com.au

Mobile:
Spencer White: 0428 669 093

After Hours:
Spencer White: (02) 6722 3979

Appendix 1

7th October 2011

To Whom It May Concern

I have been working with Lloyd and Helen Hewens as their Livestock Agent since January 2010 and I have been a livestock agent in this area for the past 38 years and in particular have worked extensively in the Kings Plains area.


The property "Spring Creek" has been improved greatly since Lloyd and Helen moved there. The pastures have been improved beyond belief in such a short space of time. The country is now turning off fantastic fat lambs and prime cattle. It pleases me greatly to see the potential of this property realised and it is a testament to the owners hard work that this has been achieved.

Lloyd and Helen are great believers in fodder conservation and they have managed to do this by producing excellent quality Lucerne hay which has enabled them to maintain a higher stocking rate, thus improving their bottom line.

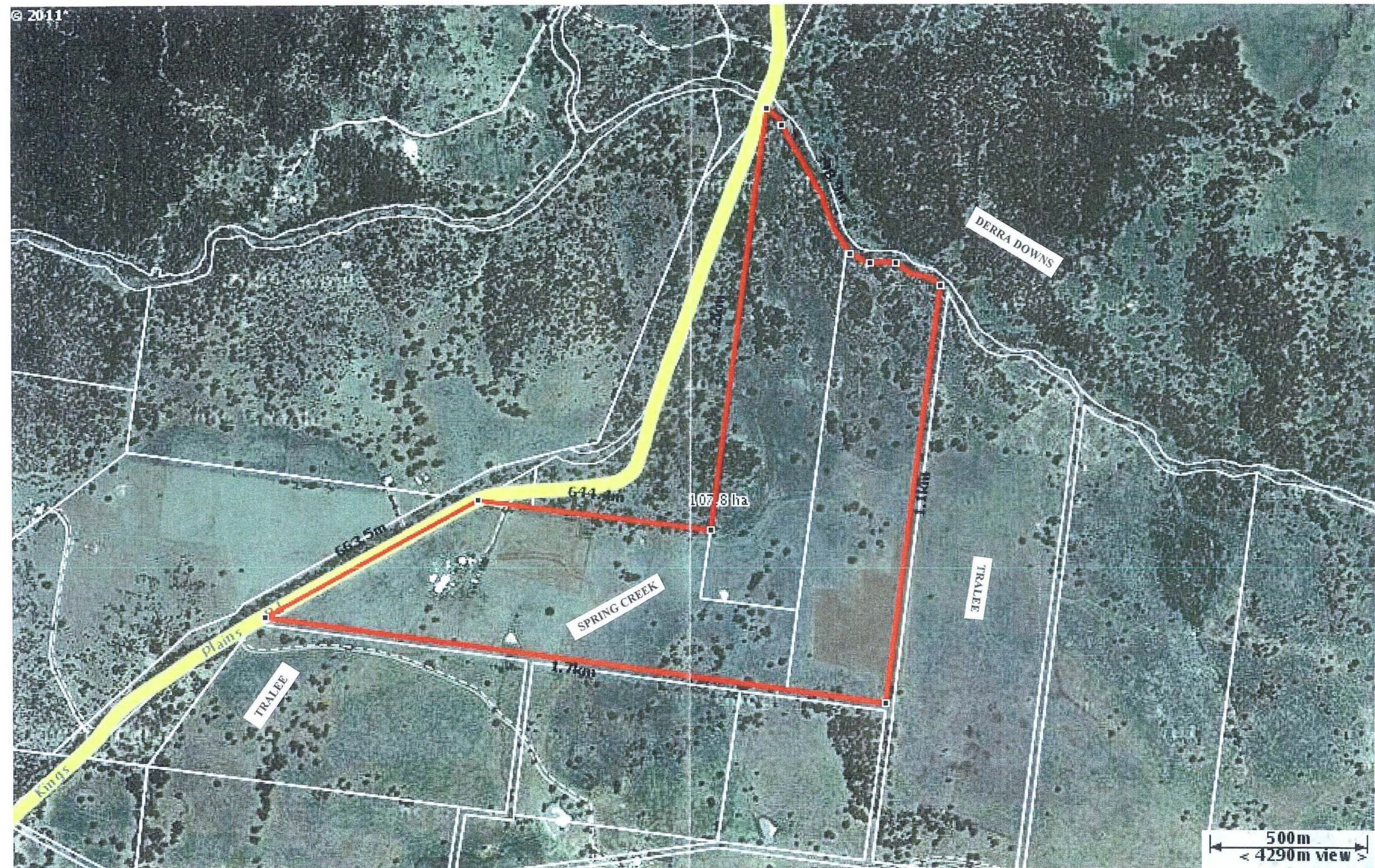
Lloyd and Helen take a great deal of pride in their home and have established a wonderful garden and vegetable plot in the process. The outlook toward and from the house is now outstanding and I feel that if any "foreign" structure such as a wind tower were to be constructed within sight of this property it would be detrimental to the value of the property and unjust to the owners who have spent so much time and money in improving their asset.

Should you wish to clarify any of these points please feel free to contact me.

Yours faithfully



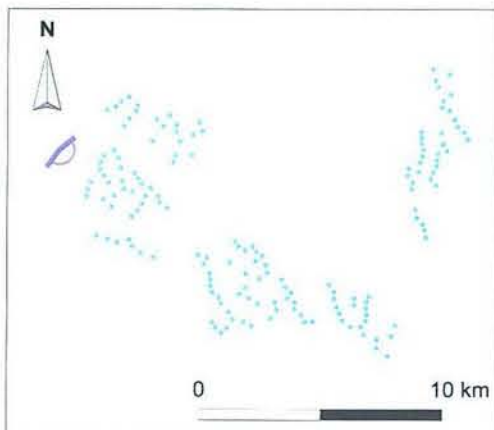
SPENCER J WHITE
PRINCIPAL



EXISTING VIEW



PREDICTED VIEW



Grid reference: 341823E 6715905N
 Viewpoint elevation: 831 m AHD
 Date/time photograph taken: 02/08/2011 4 pm
 Camera height: 1.8 m
 Number of turbines visible: 113

Turbine layout used: 80 m
 Turbine blade tip height: 147 m
 View direction: 133.5°
 Included angle: 164.8°
 Distance to nearest turbine: 1.8 km

SAPPHIRE WIND FARM: SPRING CREEK
 View South East from Spring Creek

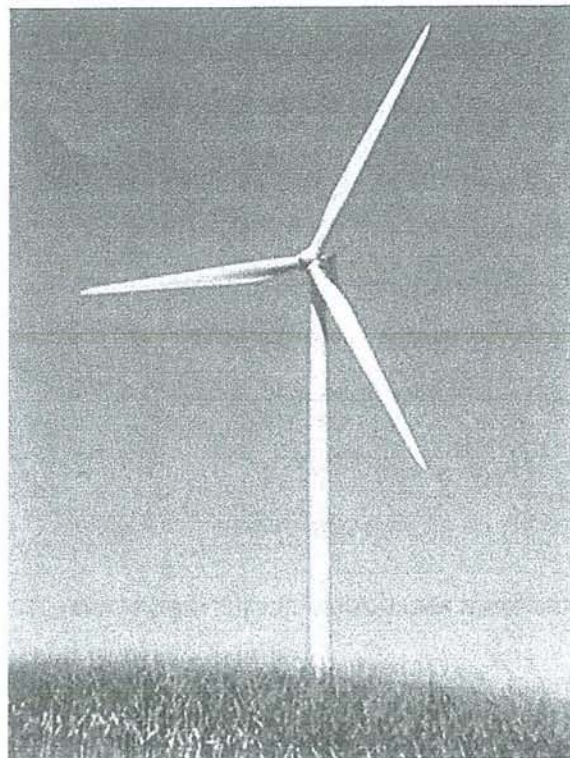




INVERELL SHIRE COUNCIL

DEVELOPMENT CONTROL PLAN

WIND POWER GENERATION



2009

Adopted by Council: 28 April 2009
Effective: 8 May 2009

- e) Proposed *wind turbines* are to comply with the current version of the South Australian EPA Wind Farm Guidelines. Where noise levels are found to exceed EPA guidelines, Council will require remediation work such as cessation or decommissioning of the turbines to reduce the noise impacts on sensitive receptors such as non-related dwellings.
- f) Where visible from a non-related dwelling or immediate surrounds, the development shall not be located within 15 times the blade tip height or 2km's (which ever is the greater) of any dwelling not associated with the development or 15 times the blade tip height or 2km's (which ever is the greater) from a reasonable, practical and suitable dwelling site on any lot that has been created for the purpose of a dwelling. Where turbines are proposed to be significantly higher than such properties/dwellings or where the turbines will dominate the immediate view from the dwelling or dwelling lot, increasing these separation distances is recommended.
- g) The development shall not be located within two times the height of the turbine (including the tip of the blade) from a formed public road. The applicable road authority may require a greater distance.
- h) The development shall not be located within two times the height of the turbine (including the tip of the blade) from a non-related property boundary.
- i) Turbine locations shall be located sensitive to non-related dwellings surrounding the development. Existing and proposed screening could be used to minimise visual impacts to non-related properties, however due to the height and scale of turbines, screening is not always a practical option and therefore not the preferred option for dealing with visual impact. The developer's priority should be endeavouring to position the turbines in locations with low visual impact to near by properties, especially existing dwellings and lots provided for dwellings.
- j) Turbine locations are to be sensitive to existing related dwellings on the subject site. Issues of excessive noise, shadow flicker and general proximity to turbines should be minimised.
- k) Turbine locations should not surround a non-related property. Where a non-related property has turbines adjacent to more than one axis of the property, there should be sufficient setbacks/distances to the development to minimise the visual impact of that property.

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

We have spent almost one year attempting to understand the complexities of wind energy. We have researched the potential benefits and acknowledged deficiencies of industrial wind turbines. We have tried to educate citizens on Cape Cod and in Massachusetts about industrial wind energy. We have tried to foster public debate, through the formation of a Cape-wide group that has sponsored public presentations by relevant experts and has disseminated technical engineering reports, clinical medical research on adverse impacts, detailed acoustic studies of the special characteristics of wind turbine noise, relevant environmental information and numerous news reports and first-person testimonials from around the world to local, state and regional governments and agencies and to the general public.

Now after traveling to Australia and meeting with and interviewing dozens of people who have been profoundly adversely impacted by industrial wind turbines or are fighting the construction of wind turbines in their communities, we now understand with certainty that the very dramatic and real problems with wind energy are much, much worse than we had previously imagined.

What follows is a preliminary summary of our visit in Australia.

We spent the afternoon of 1/9/11 with the leaders of a country-wide organization called the Australian Landscape Guardians. They explained what is happening throughout Australia concerning the siting of industrial wind turbines. They told us that the government of Victoria, Australia is currently formulating a new policy which requires a minimum setback for all new wind turbine projects of 2 km (1.24 miles). They also informed us that the new policy includes the provision that no wind turbines can be built in National Parks, State Parks, or certain areas determined as scenic in character.

Later in the day we met Sarah Laurie, MD, Medical Director of the Waubra Foundation, who arranged this amazing journey for us. We spent time with her and she explained her work to us, which is to gather information from affected residents in order to encourage researchers to conduct appropriate independent research, to lobby for funding for such research, and to provide information and support to people who have been adversely impacted by the turbines.

That night we had dinner with a group of residents in a rural area that have organized to fight several large wind developments in their communities. They requested that we describe what has been happening on Cape Cod and in MA.

The following day, on 1/10/11, we spent conducting interviews with some of the nicest and hardest working people we have ever met. Their stories are so incredible, emotional, and, ultimately so profound that we wanted to share our initial observations with you. We interviewed 17 people who have been adversely impacted from a health standpoint.

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

We also interviewed a very courageous journalist who tells the stories of those in the Waubra area who are adversely impacted by industrial wind turbines.

ONGOING RESEARCH CONCERNING ADVERSE HEALTH IMPACTS TO THOSE LIVING TOO CLOSE TO INDUSTRIAL WIND TURBINES

- Sarah Laurie, MD has been meeting with the victims of the Waubra wind power plant to gather information about their symptoms and illnesses, and to help provide information about the current knowledge of the health effects of wind turbines on human health to their General Practitioners and other doctors involved in their care. As part of her work, she has requested the victims keep track of their blood pressures throughout each day to investigate the impact of the turbines on their blood pressure. Her preliminary findings indicate that a number of the victims are experiencing dangerously elevated blood pressure since the turbines became operational, which go back down to normal levels when they are away from the turbines. Victims are tracking their blood pressure readings, and there are plans to do comprehensive investigations using 24-hour Holter Monitors, as this is the best way to measure what is going on. Some of the victims have been placed on blood pressure medications. Dr. Laurie is concerned because elevated blood pressure in the morning is an indicator of increased risk for heart attack and stroke. She has learned of several people who had normal blood pressure readings prior to the wind turbines being constructed who have now developed high blood pressure, or have had heart attacks and strokes since the turbines commenced operating. There has been one death so far due to stroke. She wants these incidents further investigated, to see if there is any connection with turbine operation when these people developed symptoms.
- Dr. Laurie also feels that it is important to investigate the impact of long-term exposure to industrial wind turbines and health. Some who have lived in the Waubra area, and are now industrial wind turbine development refugees due to adverse health impacts, have found that some of their symptoms have not gone away after permanently leaving their homes near the turbines. These people report that initially, during the first months of living near the wind turbines, their physical symptoms went away when they left the Waubra area for even a matter of hours. Several people we spoke with are concerned their health problems may be permanent. Again, these people had no problems prior to the wind turbine development.
- Some of the people living within 5 km of the wind turbines at Waubra experience what was called upper lip quiver. Two of the people we interviewed talked about this. When the wind turbine infrasound is intense, people experience a sensation in their upper lip that they can not control. Their upper lip vibrates and this twitching vibration can be seen by others. The sensation is disturbing to the people experiencing this not only because the vibration is extremely uncomfortable, but the loss of control of their own body is alarming. Dr. Laurie is gathering data on the

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

incidence of this symptom, as it appears to be highly specific with wind turbine operation. It has been reported in residents who live up to 10km adjacent to two wind developments elsewhere in Australia. She is concerned that if these symptoms are being noted at this distance, that there may be other effects on people such as elevated blood pressures, which may go undiagnosed.

- Several people living within 5 km of the wind turbines have experienced a sensation where they have woken up at night with a feeling that their heart was about to leap out of their body. Their pulse was alarmingly high. This has happened on several occasions for each of the people we spoke with who described this symptom. Dr. Laurie is gathering data that residents are noting in their personal health journals. She is also working to encourage further research in an attempt to find out more about this phenomena.
- A local Sleep Physician has agreed to carry out further research, as he is concerned about the effect the turbines are having on the health of his patients, in particular their disrupted sleep. Sleep deprivation is a major issue for the people we interviewed.

1. SETTING THE STAGE:

- Waubra and surrounding small towns are agricultural areas in a truly beautiful landscape of rolling hills and valleys. Many of the residents have lived in the area for many generations. Farming operations include sheep, cattle and various crops. Farming is a major source of revenue in the Waubra area. The farmers we spoke with are very concerned about the environment. Many of them use organic farming methods and all practice energy conservation. Waubra is located approximately 100 km from Melbourne.
- The people interviewed described their community life as very positive prior to the Waubra industrial wind turbine power plant development called a 'wind farm'. (They know farming and stated that the 128 wind turbines have nothing to do with farming. They call this development a wind power plant.) Parents stated the schools were very good and felt their children received good educations. Family life is very important to the people we interviewed.
- Many of the victims we interviewed were older parents. Many of their grown children who work on the farms planned to take over the family farms as their parents retired.
- Much of south eastern Australia, including Waubra, has experienced 15 consecutive years of drought. This is very important as it had a significant impact on the development of the wind power plant.

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

- The Australian government, like the U.S., has placed a major emphasis on developing and deploying renewable sources of energy, especially wind energy. As in the U.S., Australia has set a target of 20% of its energy to come from renewal sources by 2020. The government provides generous subsidies and tax breaks to wind energy developers.
- The initial wind energy developer, Wind Power, began the process in 2003/2004. An application for a Planning Permit was submitted in 2005. The people we interviewed stated that the initial presentations were long on lofty claims and very short on facts. Some of the people we interviewed attended informational meetings and stated that the presenters claimed there were no problems with noise. The salesmen stated that the turbines sounded like leaves blowing in the wind or a stream – similar to claims we have heard in the United States that wind turbine noise is “no louder than a babbling brook, a refrigerator or a quiet conversation.”
- Here is where the prolonged drought played an important role. Many farmers, especially smaller land holders, had suffered financially and they felt the wind turbine lease payments represented a life-line to help them through the difficult drought. So many signed up. IT IS IMPORTANT TO NOTE: some of the residents that did not sign up had reservations about the wind ‘farm’, but they did not raise their concerns because they were told by the salesmen that there were no problems and they did not want to interfere with their neighbors earning much-needed money from leasing their land to the wind energy developers. Their considerations for their neighbors would take a tragic turn following the construction of the wind energy power plant.
- Construction of the Waubra wind energy power plant occurred in stages and by June 2009 was fully operational. There are 128 industrial wind turbines covering an area of approximately 173 square kilometres.
- Many of the residents we interviewed, and presumably the people who leased their land, were shocked by the size and placement of the turbines following the construction. We were told that many residents felt lied to due to the actual size and placement of the wind turbines.

2. WHAT WE OBSERVED:

- All of the residents we interviewed have suffered a profound impact on their health, their relationships with family and their community, their confidence in elected officials, their financial condition and property value, and their life plans and future. They all feel betrayed and they are extremely angry. Here are the reasons why:
- *All of the people we interviewed are sick – very PHYSICALLY ILL, as confirmed by a medical doctor, and in many cases by their family physicians.*

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

Their symptoms track with the symptoms we have heard experienced by the victims in Falmouth, MA; Vinalhaven, Maine; and many other communities globally. It was abundantly clear from these interviews, which we videotaped, that the suffering of the people has been severe. They report severe headaches, eye pain, difficulty sleeping, emotional distress, racing hearts, dangerously high blood pressure, ringing in their ears, panic attacks, feelings of hopelessness, inability to concentrate, and inability to find simple words when speaking. Children are experiencing the same symptoms as their parents. The parents we interviewed reported that their children's performance in school has radically declined since the wind plant began operation. Many we interviewed are under the care of physicians and take medication that they did not take prior to the wind turbine development. ALL THESE SYMPTOMS DEVELOPED AFTER THE TURBINES BEGAN TO OPERATE. It bears noting that the residents we interviewed, many of whom are farmers, were all healthy and hearty people who had spent their entire lives working outdoors. They are proud, and solid citizens. THEY ARE NOT COMPLAINERS...JUST THE OPPOSITE. Nonetheless, they can not ignore, nor overcome, their persistent symptoms that began to affect them, to threaten their health, and to disrupt their lives, since the arrival of the wind plant to their community.

- **REASON FOR A RED CODE ALERT:** Many of the people we interviewed lived from 3 km to 10 km from the turbines. A two km (1.24 mile) setback at this wind power plant location would not have helped most of these people.
- We were told by several that it is worse inside their home than outside because their window jambs rattle and parts of their homes vibrate.
- All the people we interviewed used similar descriptions when explaining their symptoms. They all describe feeling 'pressure' on their chest, their heart, their head, their ears and their eyes. Some have already declared themselves to be 'INDUSTRIAL REFUGEES' and have abandoned their beautiful and long-cherished homes. Others are considering leaving. Still others are determined not to leave even though their health has declined dramatically. The despair of the residents is evident as they describe this most difficult decision of whether to stay, or to abandon their homes.
- We interviewed one resident who said that she is in such pain at times she thinks that putting a bullet in her head would bring more relief than the pain she is experiencing.
- Some of the people we interviewed told us they believe that many of their neighbors who signed the leases and are hosting the turbines are suffering physical adverse health symptoms as much as they are. They stated that the land owners who signed the leases are prohibited from talking about their health problems because of the gag-clauses in the leases.

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

- Those who have left their homes all report that their health problems have become less severe when they are away from the wind power plant. Most state that when they leave the Waubra area they feel better and that their blood pressure readings return to normal levels. But, it is very important to note, that some of the symptoms for some of the people have not gone away. Some are concerned their health problems may be permanent. The physician we talked with shares their concern.

3. SENSE OF COMMUNITY:

- THIS IS A TRAGEDY OF MONUMENTAL PROPORTION. According to many residents we interviewed, the Waubra area community, in their view, has disintegrated. Five generations of citizens, many life-long friends, have become adversaries. As we listened to the residents describe what has happened, we were very sad to see the emotional toll it is taking on these fine people who highly value the sense of community. One story told was that the local pub recently closed because people no longer frequented the pub because they feared who they might meet. We heard stories of violence, including an incident when one victim publicly stated his health problems and neighbors (former life-long friends) who leased land for the turbines sought revenge. Some residents told us that they now drive to near-by towns to go to the grocery store or the Post Office because they are verbally attacked in Waubra. One person stated it is their belief it will likely take a generation -- after the turbines are removed -- before the social healing can begin for their community.

4. IMPACT ON ANIMALS:

- The health of animals is naturally very important to farmers. Many of the residents told us that the wind turbines had an adverse impact on their animals.
- One farmer described how he had to 'put down' a blind sheep that had managed to take care of herself until the turbines began operation. After the turbines started, the sheep walked in circles and kept injuring herself walking into objects, so the farmer euthanized her.
- Others stated their dogs who are normally quite calm 'act up' when the wind turbines are loud from an audible standpoint and also when the infrasound is bad (note that dogs and other animals have a wider range of audible hearing than humans).
- When the wind farm commenced operation the usually very plentiful bats disappeared. Recently a few have been sighted. Overall there has been a decrease in the bat population.

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

5. IMPACT ON VIEW AND AESTHETICS OF RURAL ENVIRONMENT:

- The people we interviewed had all consciously chosen to live in the rural countryside. As previously noted, many we interviewed have maintained family farms in the area for multiple generations. Virtually all of them were heart sick at the wholesale transformation of their environment and what they characterized as the destruction of their land. Like many on Cape Cod who love the beauty of the sea, the dunes, the vistas, and the rural character of the Cape, the people we interviewed felt a profound sadness and loss regarding the industrialization of their natural and cultural heritage and community.
- One person we interviewed stated she could see 64 turbines from her land. At night the once tranquil vista now looks like an amusement park with dozens of red blinking aviation warning lights atop the turbines.
- Many of the people living in the Waubra area have powerful telescopes that they once used to enjoy the vast night sky in Australia. This was a popular hobby that used to bring great pleasure to many here, but the people in the region can no longer use their telescopes because the night sky is filled with pulsing red lights from the wind turbines.
- One resident gave us a written diary containing a day-by-day account of the noise emanating from the turbines and her observations of the adverse effects upon her health. She also wrote about the beautiful sunsets and sunrises that were spoiled by the flashing red lights – a record of observations which illustrates her love of her natural environment and her sense of permanent loss.
- One of the industrial refugees said that everywhere she looked there was movement. She couldn't stand it physically. She has motion sickness and it made her sick to her stomach and dizzy when she looked out of her windows. She reported that she found it unbearable to go outdoors and work in her garden, one of her favorite past times. In the Waubra area, every person we met had a beautiful flower garden as well as vegetable garden. They all took great pride in their garden.
- The Waubra area once was a rural, peaceful, serene location and it was evident to us from the testimonials we heard, that the hearts and souls of the residents we interviewed were tied to the land. They repeatedly described their rural location as being ruined, and turned from a peaceful countryside into an industrial zone.
- As in many similar locations around the world, including Falmouth, MA and Vinalhaven, Maine, most of the people we spoke with had supported the wind turbine development until it became operational. They now described how sad they were that their beautiful landscape is marred with the wind turbines. Some told us

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

that this is not a place people want to come visit since its former beauty, and its sense of peace and tranquility, are now gone.

6. IMPACT ON LIFE GOALS:

- What can one say? The lives of many residents that we interviewed have been completely upended, even shattered, as is evident from their videotaped accounts. Like most people, they had a plan for their future. Many had taken for granted that they would continue to work their land and pass the family farm to their children.
- One resident purchased a 300 acre farm in the Waubra area to grow organic crops and livestock three years ago, about one year before the turbines began operation. Now he can not work on areas of his farm because the pain he experiences is too severe.
- Another family owns and farms a 4,000 acre property. When the wind developer offered them lease payments for eight turbines and extra income for transmission lines, they turned the offer down because they don't need or want any outside interests in their farm. They have now abandoned their beautiful home. During our videotaped interview, the mother of young children became extremely emotional when she described the decision to leave their family home and how that decision impacted her children.

7. THE WIND ENERGY COMPANY RESPONDING TO COMPLAINTS

- According to the residents, it would appear that the general response to a complaint by the Company is to (now, but not until continually requested) provide an Incident Reference Number. Frequently people are told 'we will look into it' and 'we will pass it to the relevant people'. Nothing happens. No investigation. When people first began to complain they did not ask for a Reference number and they felt that more than likely their complaints had not been registered.
- One resident who lives over 2 km from the nearest turbine, and who has made numerous complaints, was told that no one was responding to his complaints because he lived "too far" from the wind turbines.

8. PROPERTY VALUES:

- PLEASE KNOW THAT ANYONE WHO STATES THAT PROPERTY VALUES ARE NOT IMPACTED BY WIND TURBINE DEVELOPMENT IS NOT TELLING THE TRUTH. What has happened in the 18 months since the turbines began operation illustrates an impact on property values. We were told the following: Seven property owners have had properties purchased, so there are at least 7 properties, but maybe up to 10 properties that have been purchased. 4 property owners were involved pre-construction of the wind farm. 3 property owners have had properties

ADVERSE IMPACTS FROM WIND TURBINES IN WAUBRA, AUSTRALIA AND SURROUNDING AREA

purchased after the wind farm commenced operation. The two most recent properties to be purchased were because of noise. We were told by residents still living in Waubra that one of the property owners was bought out because of visual amenity even though she had been very outspoken in the media about her health problems. (We were told that the wind developer does not purchase properties based on health issues.)

- Further, some residents we spoke with report that there are more near-by properties coming on the market all the time. Some said there are not interested buyers in their area. One resident stated that she knows of a property that had more than 100 interested people contact the real estate agent, but when they found out the property was near the Waubra Wind Farm, not one prospective buyer has visited the property. We have heard from property owners in the Waubra area that real estate agents have said, if you can see the turbines it is very hard to sell the property.
- Many of the people we spoke with are certain that property value has dramatically declined, and some feel their properties can not be sold at any price.
- One person stated that the wind development has cost him \$1,000,000 dollars in lost property value and costs incurred since the wind power plant has come to his town.

Written by:

Preston G. Ribnick and Lilli-Ann Green

Preston Ribnick is President and Lilli-Ann Green is CEO of a company in the United States, Professional Resource Group (PRG) which was established in 1979. The company's core competencies include quality improvement, health care consulting and market research. Both Preston and Lilli speak around the United States to health care professionals on various topics related to quality improvement. PRG also develops educational programs for the health care industry. Many PRG programs are widely distributed in the U.S. and the audiences include physicians and nurses. PRG has worked with over 160,000 health care professionals throughout the United States, Canada and Puerto Rico since 1979. The main focus of PRG educational programs is quality improvement. Many of the programs center around various disease states.

version 2/9/11

Appendix 6

Submission
No 64

INQUIRY INTO RURAL WIND FARMS

Name: Ms Beth White

Date received: 21/08/2009

Thank you for the opportunity to lodge a submission to the Legislative Council General Purpose Standing Committee No 5 Inquiry into Wind Farms.

The preliminary assessment required of Ecological and Environmental Impact Assessment completed as a requirement for the Department of Planning and submitted for discussion at a meeting at Ben Lomond on 29th January 2008, for discussion, highlighted the need for further investigations as well as provision for mitigation strategies to compensate for the impact of any wind farm developments in rural communities.

I would therefore request that further investigation be undertaken in consideration of the impact of wind farms, prior to their further large scale construction throughout rural Australia.

-Carbon Neutral Timeframe.

The timeframe to achieve carbon neutral status, claimed between competitors in the district must be proven. The discrepancy between claims is alarming and unconvincing especially when climate change benefits are the basis for justification for initiation of these projects.

Evaluations and conclusions drawn from investigations conducted as long as five to ten years ago are not current and cannot be accepted as valid in light of the rapid technological change for investigative and analytical evaluation that has occurred over that period. Currency of investigations undertaken to underpin decision making and determination of a future power source, is relevant and must be appropriate.

-Turbine Technology

While the technology remains undefined the environmental impact assessment is merely a prediction based on an average. It is the theory of a probability 'scenario.' It cannot be relied on to assess the concern for any specific species, nor the true impact on a community. In addition to this, I am aware of a number of European Windfarm projects which have caused significant damage to surrounding landscape and fixtures due to turbine & metal fatigue resulting in material breakdown (i.e. blades dislodging from towers). What assurance can be provided that the technology to be employed will avoid these issues? What factor is calculated into the carbon neutral timeframe equation for relevant maintenance of this nature?

-Methane.

Preliminary research attributes a capacity for some alpine soils to absorb more methane than grazing cattle of these regions can emit. The quantities of cement and gravel base for roads that will cover these soils must be evaluated and included in calculations for carbon neutral claims.

-Transmission

Invariably wind generation is selected for lower populated areas although the demand for electricity consumption is greatest where the greater population dwells. Leakage through transmission is inevitable. Residents affected by transmission lines are affected irrespective of the source of the electricity generated. Technology for onsite

generation in cities is available and needs to be further developed improved and perfected to minimise the effects of long distance transmission and the associated visual pollution. Where lengthy transmission systems cannot be avoided mitigation strategies must be negotiated by way of compensation for the long term impact on communities, the affected parties.

-Dung beetles.

In consideration of Environmental impact, an investigation of some insects vital to the productivity of the grazing industry should be included. There are a number of native dung beetles active in our grazing environment. While naturally active in macropod dung, they have adapted to work effectively in the dung of both sheep and cattle.

Graziers are investing heavily in introduction and monitoring of redistributed, climatically matched, beetle populations. Dung Beetles have the capacity to return nutrient to the soil, and so prevent its entry into the waterways. They are beneficial in the chemical free control of bushfly and buffalo fly populations. Wind turbines may adversely affect these insects as they fly at dusk and dawn, following scent plumes, to find new food sources. A study of the affects of the turbines on the survival of this insect population should be taken into consideration. No studies have been conducted and therefore the outcome cannot be assumed.

-Native Bees are delicate, timid and easily disturbed. Small colonies inhabit woodlands or isolated trees. They perform vital pollination of native vegetation and pastures along with other insect pollinators ie moth and buttrflies.

Commercial Apiary Sites rely on pasture and timber sources within the locality and easily suffer dislocation. Studies on the affect of the Windfarm on native bees and other pollinators as well as commercial apiary operations should be undertaken, evaluated, and the impact on communities recognised with an appropriate and responsible strategies.

-Aerial seeding and fertilising

The Grazing industry is dependent on plant germination and growth. Graziers have been advised of increased costs for fertiliser spreading due to the presence of Wind Farms. Mitigation strategies should be outlined to address the increased cost to commercial farming operations and increased danger to aerial agricultural operators.

-Weeds

The risks of transfers of "weeds of significance" are noted for attention during movement, construction and earthworks. However the effect on plants with wind borne seeds lacks reference. We could experience varying distribution patterns of noxious weeds such as nodding thistle, serrated tussock & African lovegrass, for example, due to variation of air turbulence patterns. Noxious weeds and environmental weeds pose a threat to both the natural environment and the sustainability of the grazing industry. All actions that may vary seed distribution patterns need investigation and quantification, so that the affected parties can be offered appropriate mitigation.

- Gravel and Water being sourced locally will impact on a plethora of local industries through increased price in response to demand on limited capacity of local

industry to supply. Engagement should be undertaken with local suppliers, Local Council to adequately address this issue.

If it is found that costs are to escalate for local users, short or long term, as a result of the presence of the windfarm project, mitigation strategies should be outlined to address these increased costs across the client base.

-Hydrological studies

Hydrological surveillance in any area is warranted given the high incidence of spring water present in hilltop locations, the common position for placement of deep foundation pads for windfarm structures. Any disruption of these water systems will impact heavily on local use and on river catchments that emerge in the mountain ranges.

-Surety

Adequate measures must be in place to ensure that proponents establish appropriate trust funds prior to construction, in order to guarantee the availability of sufficient financial resources for a complete reclamation of wind generation facilities in the event of market failure or business failure. Where approvals are to be given, authorities have the responsibility to ensure appropriate mechanisms are in place to guarantee sufficient funds for the recovery of all components of expired wind generation equipment and the ongoing repatriation of the entire site, all thoroughfares and precincts.

I am already aware of communities with contracts, committed to retainers, for reserved sites, intended to guarantee their future business, who have defaulted. In economic terms this has significant ramifications across a community, as individuals are contracted to a single operator in any given project area.

The case in Point.

Right now I can cite a case where the monitoring structure remains in place, there has been a default on payments to this farm and to neighbouring properties, although due.

There has been no explanation, no offer of compensation, restoration or reclamation of the site.

Higher fertiliser prices continue to apply due to the presence of the structure.

Excess traffic has been experienced across the site while ever the site has been active.

The owners have offered the property for sale.

Repeated buyers reject this property due to uncertainty and complications.

This scenario and those like it cannot be allowed and certainly must be avoided in the future.

-Cumulative Impact

With several Wind Farm projects being proposed in the local district, none can be considered in isolation. The **cumulative effect** on the ecology, visual amenity, resource base and social impact must also be evaluated over the wider area.

Thank you for your consideration of my submission, I look forward to the outcome of the inquiry and trust that future action will be appropriate within and for communities.

Regards,

Beth White

Appendix 7

PRELIMINARY ASSESSMENT OF THE IMPACT OF WIND FARMS ON SURROUNDING LAND VALUES IN AUSTRALIA
NSW DEPARTMENT OF LANDS

**PRELIMINARY ASSESSMENT OF THE IMPACT
OF WIND FARMS ON SURROUNDING LAND
VALUES IN AUSTRALIA**

Prepared for:

NSW Valuer General

August 2009

The final assessment considered possible "Nuisance Effects" of dwelling being located very close to wind turbines (within ¼ mile, ½ mile and one (1) mile). This was tested by comparing sales of closely located properties with those located further away. Preliminary analysis indicated that there was no statistical evidence that dwellings located close to a wind farm sell for less than those located further away.

Hoen and Wiser (2008) did note that although there may be isolated cases of reductions in value, the largest potential effect found was a 15% reduction in sale price when located within ¼ mile of a wind turbine, these effects are not widespread in their sample.

The study is currently ongoing. When completed, it will provide a comprehensive piece of research that will likely make a substantial contribution to the issue at hand.

3.1.5 "Land Value Impact of Wind Farm Development: Crookwell NSW" – Henderson & Horning (2006) – Australia



Henderson and Horning Property Consultants prepared a report on behalf of Taurus Energy Pty Ltd on the effect of the Crookwell Wind Farm in NSW Australia on local property values. Taurus is the proponent of the wind farm.

The report included an analysis of 78 property sales surrounding the Crookwell Wind Farm over a period of 15 years from 1990 to January 2006. Sales of properties in the view shed of the wind farm (using a 6 kilometre threshold) were compared with sales of those not in the view shed.

No reductions in property values were found for properties in the view shed of the wind farm.

3.1.6 "Wind Farms: The Local Experience" – Hives (2008) - Australia



In August 2008, two presentations were given by property valuation consultants at the Australian Property Institute's (API) Country Conference on recent work they had completed on wind farms and surrounding property values. Hives (2008) presented an analysis of individual sales transactions from properties surrounding the Waubra wind farm near Ballarat in Victoria. The wind farm was being constructed at the time of the study, although many turbines had already been erected. Hives hypothesised that:

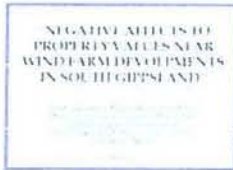
- Agricultural land with turbine leases would become more valuable
- Adjoining agricultural land values would not be affected
- Lifestyle properties and residential properties located in the town might be affected

Results of 12 individual sales analysis indicated that:

- Properties benefiting from turbine leases increased in value.
- Rural properties were unaffected.
- Some detrimental effects were evident on lifestyle properties.

Hives (2008) concluded that lifestyle values had the greatest potential to be affected as a large part of their value is typically derived from the aesthetic qualities of the surrounding environment.

3.1.7 "Negative Affects to Property Values near Wind Farm Developments in South Gippsland" – Jess (2008) - Australia



In a separate presentation at the API Country Conference Jess (2008) presented a range of sales transactions that had occurred at the Toora wind farm in south east Victoria. The sales transactions indicated that the wind farm developer had been purchasing surrounding properties following planning approval and completion. Also, a sales transaction of a 'lifestyle' property which sold both before and after the construction of the wind farm was presented. The property was located close to the wind turbines with substantial views of the turbines. It was estimated that the sale after the construction of the wind farm was approximately 30% below the market value of the property had the wind farm not existed. However, this was a single transaction and such a decrease has not been evident in other sales nearby.

3.2 PERCEPTUAL STUDIES

In addition to research on property sales transaction data, there has also been some research conducted into local residents' and industry professionals' opinions of the effect of wind farms. Perceptual research generally indicates that a portion of the public both in Australia and internationally believe that wind farms negatively affect property values.

3.2.1 "A Tale of Two Windy Cities: Public Attitudes towards Wind Farm Development" – Bond (2009) - Australia



Bond (2009) researched public attitudes towards wind farms and property values among residents living in the towns Albany and Esperance, Western Australia (WA). Each town is located close to a wind farm in WA. The siting of the wind farms in these locations was deemed to be too far away (more than 10 kilometers) from residential areas to conduct hedonic modeling. Rather postal surveys were used in order to gain a qualitative understanding of resident's attitudes towards the wind farms. A total of 800 paper surveys were posted to Albany with a 38% response rate. Additionally 500 surveys were posted to Esperance with a 21% response rate.

Survey responses indicated that residents generally considered wind farm developments to be positive providing they were located a sufficient distance away from homes as to not disturb them. The distance reported to be acceptable was generally over five (5) kilometers away. Approximately two thirds of Albany residents and one third of Esperance residents felt more in favor of the wind farms after the farms were completed.

Over two thirds of survey respondents indicated that a wind farm would not influence the price they would be willing to pay for a property. On the other hand, nearly a quarter of survey respondents indicated that they would pay less, with 38% indicating they would pay 1-9% less, while 22% of respondents indicated they would pay 10-19% less.

4.2 ADPOTED METHOD OF ANALYSIS

Wind farm sites were investigated using the following analytical techniques:

- 'Before and after' sales analysis
- 'Matched pairs' sales analysis

The process involved in each of these is described below. These are conventional valuation techniques and have been widely used and accepted by the industry in property compensation matters. Additionally, a direct comparison of sales provides reasonably clear evidence as to whether or not there is a difference in price attributable to a property's proximity to a wind farm.

The 'before and after' method was mainly applied to Victorian sites due to limited sales data able to be investigated within the bounds of the preliminary scope of the exercise. Conversely, the 'matched pairs' method was mainly applied to one (1) NSW site as it provided sufficient data for this type of analysis.

For each of the wind farm sites all of the property sales transactions that occurred in a ten (10) kilometre radius from the wind farm in the period after construction had begun were investigated and analysed. The analysis was generally limited to sales that had occurred up to four (4) years after construction of the wind farm, but in some cases due to low number of sales the search was extended to include all sales available to date. Sample wind farms sites were physically/visually inspected, and properties were categorised according to whether a wind farm was visible from the property or not.

Limited discussions were also held with local property professionals to gauge anecdotally how the local market had perceived the wind farms.

4.2.1 Rationale

Due to limitations surrounding sales data availability and large differences in the physical characteristics of properties, the sample was not considered suitable for hedonic modelling techniques as used in previous research (Hoen & Wiser, 2008; Sims & Dent, 2007; Sterzinger, Beck & Kostiuik, 2003).

The availability of sale data for analysis was limited as much of the wind farm development that has occurred to date has been in remote and/or farmland areas with low population densities and a corresponding small number of property sales. This limited the scope for statistical analysis.

Additionally, there was significant variation in the characteristics of the properties surrounding the wind farms; this included characteristics which are commonly known to influence the value or sale price of a property. Examples include land size, dwelling size, dwelling condition, and improvements. These differences further limited the extent to which sales data could be compared using statistical analysis.

Also, the use of hedonic price indexes in conjunction with statistical analysis can have its problems. A complex array of factors affects property sales prices (especially residential properties). Some difficulty can usually be expected in deriving a meaningful coefficient for the detriment being studied (in this case, sale price reductions). Because of this, studies which concentrate on a conventional valuation analysis of individual sales can provide useful results depending upon the data being available.

Values in the Wind: A Hedonic Analysis of
Wind Power Facilities*

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ABSTRACT: The siting of wind facilities is extremely controversial. This paper uses data on 11,369 property transactions over 9 years in Northern New York to explore the effects of new wind facilities on property values. We use a repeat-sales framework to control for omitted variables and endogeneity biases. We find that nearby wind facilities significantly reduce property values. Decreasing the distance to the nearest turbine to 1 mile results in a decline in price of between 7.73% and 14.87%. These results indicate that there remains a need to compensate local homeowners/communities for allowing wind development within their borders.

Variable	coef	p-value
ln(Inverse Distance to Nearest Turbine)	-0.059***	0.000
Building Age	0.112***	0.000
Building Age Squared	-0.000	0.263
Number of Turbines between 0 and 0.5 Miles	0.030	0.440
Number of Turbines between 0.5 and 1 Miles	0.036*	0.097
Number of Turbines between 1 and 1.5 Miles	0.009	0.577
Number of Turbines between 1.5 and 2 Miles	-0.035	0.153
Number of Turbines between 2 and 3 Miles	0.006	0.261
Constant	6.831***	0.000
ln(Inverse Distance to Nearest Turbine)	-0.059***	0.000
Building Age	0.112***	0.000
Building Age Squared	-0.000	0.265
At Least 1 Turbine between 0 and 0.5 Miles	0.180	0.416
At Least 1 Turbine between 0.5 and 1 Miles	0.209*	0.054
At Least 1 Turbine between 1 and 1.5 Miles	-0.403**	0.028
At Least 1 Turbine between 1.5 and 2 Miles	0.303	0.154
At Least 1 Turbine between 2 and 3 Miles	-0.004	0.976
Constant	6.835***	0.000
Number of Observations	3,890	
Adjusted R ²	0.214	
Year and Month Dummies	Yes	
Clustered Errors	Yes	
note: *** p<0.01, ** p<0.05, * p<0.1		

Table 9: Regression Results - Repeat Sales

Variable	Lewis		Clinton/Franklin	
	coef	p-value	coef	p-value
ln(Inverse Distance to Nearest Turbine)	-0.063	0.402	-0.069***	0.000
Building Age	0.126***	0.000	0.113***	0.000
Building Age Squared	-0.000	0.532	-0.000	0.306
Number of Turbines between 0 and 0.5 Miles	-0.439***	0.000	0.033	0.249
Number of Turbines between 0.5 and 1 Miles	0.279***	0.005	0.015	0.338
Number of Turbines between 1 and 1.5 Miles	0.011	0.902	0.005	0.710
Number of Turbines between 1.5 and 2 Miles	-0.029	0.296	-0.021	0.112
Number of Turbines between 2 and 3 Miles	0.005	0.831	0.006**	0.046
Constant	4.809***	0.000	7.021***	0.000
ln(Inverse Distance to Nearest Turbine)	-0.058	0.477	-0.070***	0.000
Building Age	0.120***	0.000	0.114***	0.000
Building Age Squared	-0.000	0.667	-0.000	0.308
At Least 1 Turbine between 0 and 0.5 Miles	0.420	0.402	-0.016	0.901
At Least 1 Turbine between 0.5 and 1 Miles	-0.450	0.102	0.253**	0.045
At Least 1 Turbine between 1 and 1.5 Miles	5.004***	0.000	-0.165	0.351
At Least 1 Turbine between 1.5 and 2 Miles	0.611*	0.066	0.053	0.776
At Least 1 Turbine between 2 and 3 Miles	-0.117	0.645	0.038	0.730
Constant	5.004***	0.000	7.002***	0.000
Number of Observations	630		3,260	
Adjusted R ²	0.250-0.261		0.206	
Year and Month Dummies	Yes		Yes	
Clustered Errors	Yes		Yes	
note: *** p<0.01, ** p<0.05, * p<0.1				

Table 10: Regression Results by County - Repeat Sales