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23 April, 2015

Hon Jackie Trad  
Deputy Premier and Minister for  
Infrastructure, Local Government & Planning  
Sent via email:  
[deputy.premier@ministerial.qld.gov.au](mailto:deputy.premier@ministerial.qld.gov.au)

### OPEN LETTER

Dear Deputy Premier,

#### **Re Mt Emerald Wind Development, Noise Nuisance, and Torture, Cruel, Inhuman and Degrading Treatment**

Queensland residents who are concerned about the proposed Mt Emerald Wind Development, have asked me to write to you concerning this proposed industrial wind power development. I particularly wish to bring to your attention the predictable and inevitable serious adverse health consequences of the co-location of this wind development so close to the Lotus Glen Correctional Facility.

The acoustic trespass of infrasound and low frequency noise (ILFN) from this facility into the jail cells will inevitably and predictably cause recurrent and prolonged sleep deprivation to many of the inmates. Sleep deprivation is acknowledged as torture by the UN Committee Against Torture, and as the inmates have no way to remove themselves from these known, predictable, adverse impacts, it could be held that those approving this development in this location were acquiescing to torture. Under current Federal criminal legislation a custodial sentence applies of up to 20 years for those who commit or acquiesce to acts of torture.

#### **Potential Public Health Disaster**

If the Mt Emerald wind power project is approved, it will be a public health disaster by subjecting neighbouring communities to prolonged exposure to **excessive** ILFN acoustic emissions which will cause what is known legally as "noise nuisance". Such exposure leads to a variety of predictable conditions and diseases, including chronic sleep deprivation and chronic physiological stress, and all the well known serious health complications arising from those conditions including cardiovascular diseases, (hypertension, ischaemic heart disease/heart attacks, strokes), mental health diseases (severe depression and anxiety) and immune suppression (cancer and chronic infections).

It is the Waubra Foundation's strong advice that this proposed project will:

- inevitably and predictably cause a serious health hazard to many in the local community out to a distance of 10 km and possibly further over the lifetime of the development;
- result in what could legally be considered as torture and cruel inhuman and degrading treatment of the inmates of the Lotus Glen Correctional Facility;
- create many unsafe workplaces, including the prison facility, and the farms and homes within the 10km acoustic impact zone, which even the developer's acoustic consultants have acknowledged for the purposes of assessing "cumulative impact".

This development should never be approved in this location.

## Notice

This letter therefore directly informs you of the known serious adverse health effects, and most recent acoustic field evidence, and puts yourself and other ministers in relevant portfolios legally on notice about the serious adverse health effects which will ensue for a significant proportion of residents within 10km, and possibly further, if you approve the Mt Emerald Wind Development.

In view of the degree of public concern about this issue, and the attitude of responsible state authorities to this issue to date, this correspondence is public, and will be shared. It will also be provided to the current Federal Senate Select Inquiry into Wind Turbines.

## Conflicting Information – the Role of Acousticians

Minister, this task is made more difficult for you because of the conflicting information about the existence, severity, and incidence of adverse health effects, and the distance of impacts. The failure of health “experts” to understand or act on the existing acoustic field evidence, (some of which research was funded by the US Department of Energy thirty years ago) does not help you. For example:

- some acoustic advice those health “experts” rely upon is compromised. There are serious and often undisclosed financial conflicts of interest where acousticians providing advice to the health authorities, or writing the noise pollution guidelines for state government authorities, also consult to the wind industry as a major part of their business and hope to do more in the future;
- some acousticians may also be concerned about their own potential future legal liability for professional negligence for underestimating noise predictions at existing wind developments which have subsequently become public health disasters, such as Waterloo wind development in South Australia. These financial conflicts of interest are obvious, and should not occur, but they do, regularly. They are often not disclosed.
- Dr Norm Broner, the current President of the Australian Acoustical Society, was the sole acoustician on the recent NHMRC expert panel, and has done a lot of consulting work for the wind industry. This could explain why crucial independent acoustic field evidence inconvenient to the wind industry’s financial interests has been ignored, omitted, or discounted by the NHMRC and its expert panel.

**Omission of this important and highly relevant evidence makes the NHMRC documents, and the NHMRC’s most recent advice unsafe and unreliable for Ministers in state governments to rely upon.**

“Noise annoyance” symptoms which result from infrasound and low frequency noise are well known to acousticians such as Dr Broner, especially those who work in the field of low frequency noise, but they are not well recognised by most health authorities, who erroneously interpret “annoyance” to mean “irritated” which is the common meaning of this word. UK Acoustician and low frequency noise expert Professor Geoffrey Leventhall, (peer reviewer to the NHMRC’s first literature review and Dr Broner’s PhD supervisor) stated in the NHMRC workshop in June 2011 that “noise annoyance” symptoms are the same as Wind Turbine Syndrome symptoms, documented by American Paediatrician Dr Nina Pierpont, MD PhD.

Some of these symptoms and the consequences of long term exposure to ILFN are also identical to those documented by the Portuguese team of researchers led by pathologist Dr Nuno Castelo Branco, and Professor Mariana Alves Pereira, known as Vibroacoustic Disease.

Some of the scientific and biological research underpinning these scientifically established conditions goes back at least thirty years, and has its roots in the space research programs in the former Soviet Union, and the USA. In other words there is a lot of relevant acoustic and biological research which has been historically, and is being currently, ignored for the commercial gain of noise polluting industries. Some of their professional acoustic advisers are in some instances acting to protect the commercial interests of the firms who employ them as consultants, at the direct expense of public health.

## Failure of the NHMRC

The latest NHMRC advice significantly understates the known harm to human health from ILFN, and also ignores the longstanding knowledge of direct causation of adverse impacts including sleep disturbance from impulsive ILFN from wind turbines, and significantly understates the distance of the acoustic impact zone. Some of the external peer reviews of the NHMRC's recent work demonstrate that the Waubra Foundation is not alone in our concerns and criticisms of the NHMRC's recent advice in this area.

Then CEO of the NHMRC, Professor Warwick Anderson, recently confirmed in Senate estimates that health and sleep problems from wind turbine noise were known in the literature to occur out to 1500 metres. It was pointed out that the NHMRC has ignored important field and research evidence from South Australia from both Professor Colin Hansen, and from Mrs Mary Morris, the sole Australian researcher whose work was included in the NHMRC Literature Review. Mrs Morris's field research confirmed sleep disturbance was being reported **out to 10km** from the nearest 3 MW VESTAS V90 wind turbines.

This 10 km distance of impact on sleep disturbance has also been documented by others, based on first-hand reports from local residents and population noise impact surveys. The distance is consistent with reports of the distance of impact from other sources of ILFN which also disturb sleep, including CSG field compressors, coal mining, and more recently a coal-fired power station in NSW near Lithgow, disclosed in recent oral evidence to the current Federal Senate Select Inquiry into Wind Turbines by independent acoustical engineer, Steven Cooper.

## Lotus Glen Correctional Facility (LGCF) – Cruel, Inhuman and Degrading Treatment

The close proximity of the LGCF means inmates neighbouring the Mt Emerald wind farm will be subject to the acoustic trespass of these very low sound frequencies, which will penetrate through the walls of their jail cells, causing sleep disturbance, chronic and prolonged sleep deprivation, as well as physiological stress, and the resultant wide variety of known and predictably serious adverse health consequences and diseases.

Prisoners have worse health on a number of important indicators including mental health and cardiovascular health, when compared to the general population. Existing vulnerabilities further increases the risks to health from excessive wind turbine noise, including the potential for self-harm and suicide as well as cardiovascular diseases.

Prolonged sleep deprivation is acknowledged as a method of torture by the UN Committee Against Torture, who oversee the UN Convention against Torture and cruel, inhuman and degrading treatment; a convention to which Australia is a signatory. Torture, and acquiescence to torture are criminal acts in Australia, with up to 20 year custodial sentences possible. Below is what the UN Committee said about prolonged sleep deprivation:

*“The Committee against Torture (CAT) has noted that sleep deprivation used for prolonged periods constitutes a breach of the CAT, and is primarily used to break down the will of the detainee. Sleep deprivation can cause impaired memory and cognitive functioning, decreased short term memory, speech impairment, hallucinations, psychosis, lowered immunity, headaches, high blood pressure, cardiovascular disease, stress, anxiety and depression.”*

## Precautionary Principle

The NHMRC has previously urged planning authorities to adopt a “precautionary approach”, and to keep an eye on emerging research. **We respectfully suggest you heed that advice.** No doubt this specific advice will also help ensure that subsequent legal responsibility for any ensuing public health disasters shifts to planning Ministers and authorities rather than the NHMRC and its officers and consultants.

## Regulatory Failure

The Chair of the current Federal Senate Select Inquiry into Wind Turbines, Victorian Independent Senator Madigan, and his fellow Senators including Senator Matthew Canavan, are aware of the serious and growing health problems for rural residents which directly result from excessive wind turbine noise. Such a situation arises as a result of unsafe planning decisions and an abject failure of the current regulations, standards and guidelines governing wind turbine noise pollution in Australia which are meant to ensure that “noise annoyance” and sleep disturbance do not occur. The current guidelines have failed to protect rural residents.

Serious health problems and home abandonments have been occurring for the last ten years in Australia at wind developments, (and from other sources of noise) which regulatory authorities claim are “compliant”, because of the “noise annoyance” and sleep disturbance residents are currently enduring.

A few examples:

- In Queensland neighbours of the Tara CSG field are severely affected by compressor noise. Some of these residents have since been bought out and silenced by the relevant noise polluter suggesting that the noise polluter is well aware of the severity of the reported problems and the cause but will not act unless pushed to do so.
- A resident living near (RATCH-owned) Windy Hill Wind Development near Ravenshoe in Far North Queensland has suffered serious adverse health impacts from the cumulative effect of prolonged (14 year) exposure to excessive wind turbine noise. Other neighbours were badly impacted, and left their homes as a result. This resident has had independent acoustic investigations, which confirm the excessive noise. He has also well-documented evidence from his treating health practitioners as to the severity of the noise-induced adverse health impacts.

The local council is aware of the problems, and of the strength of the evidence, and indeed commissioned one of the acoustic assessments, yet has failed to stop the ongoing noise nuisance, reportedly because of a technicality with interpretation of a noise standard. The noise standard (from NZ) is not fit for purpose, does not protect against sleep disturbance and noise nuisance, and was written by a majority of acousticians with close connections to the wind industry. The resident still suffers, ignored by those responsible for his situation, and powerless to do anything to stop the ongoing acoustic trespass and noise nuisance. He is therefore trapped in an acoustically toxic home, like many others around Australia.

This situation gives no one in Queensland any comfort that the Mt Emerald residents and inmates of the Lotus Glen Correctional Facility will be treated any differently by the proponent or any government authorities. It is inevitable that noise nuisance and consequent serious harm to human health and sleep disturbance will indeed occur given what we know about the likely sound emissions from the proposed wind turbines, and the rate of attenuation of the sound energy from the source, as well as the complex topography, the insufficient separation distance between the turbines and the direction of the prevailing winds.

## Cape Bridgewater Acoustic Investigation – Steven Cooper

The acoustic investigation by independent acoustician Steven Cooper has provided the most recent **direct** scientific investigation into how airborne and ground-borne impulses of infrasound are generated by wind turbines, and when they can cause disturbances to residents in nearby homes. The study was commissioned and funded by Pacific Hydro, who along with the participating residents, co-operated fully in the study.

Steven Cooper has stated publicly that in order to protect people from excessive infrasound, a 7km setback from 2 MW turbines such as those at Cape Bridgewater would be required. This is based on his actual measurements inside acoustically toxic homes where sensitized people have had to leave or report severe impacts, and on the observed attenuation rate of infrasound over distance. The proposed wind turbines at Mt Emerald are larger and more powerful than the 2 MW wind turbines used at Cape Bridgewater, so on the basis of existing knowledge **greater** setback distances than 7km would therefore be required.

One of the acoustically toxic homes at Cape Bridgewater, abandoned four years ago by the sensitized residents including two adults and two children is a mere 1.6 km from the nearest wind turbine. The NHMRC needs to immediately update its statement that it believes it “unlikely” there is evidence of harm beyond 1.5km. This statement was drawn from a ‘literature survey’ with a cut-off date of October 2012. The NHMRC’s advice, and literature review is clearly out of date, and would be unwise for you to rely upon.

### **Concluding remarks**

I strongly recommend that you look carefully at the timeline accessible here and think about the implications: <http://cdn.knightlab.com/libs/timeline/latest/embed/index.html?source=0Ak2bgr7C0nhPdGR3S1IEekU3T3p4ZDhUNDdRV2Y2ZkE&font=Bevan-PotanoSans&maptype=toner&lang=en&height=650>. Governments whose responsible officers have ignored external and even internal warnings from experienced and concerned public servants, and who have allowed unsafe wind turbine noise pollution regulations, and made planning decisions which ignored this important scientific evidence, will be facing litigation in future. It is only a matter of time.

Finally, I suggest that before you make a final decision on this project you and your government ask Steven Cooper to brief you and your fellow Ministers on the implications of his infrasound research at Cape Bridgewater Wind Development, ask him to review the proposed Mt Emerald Wind Development and provide you with a comprehensive acoustic impact assessment of this project in this location. Mr Cooper has impeccable integrity, is a court-appointed expert to the NSW Land and Environment Court, and is an acknowledged world expert in this area, especially as a result of his work for Pacific Hydro in Victoria.

Please do not hesitate to contact me if you require further information.

Yours sincerely



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Bachelor Medicine, Bachelor Surgery, Flinders, 1995  
Former rural general practitioner in rural and remote South Australia  
Former Fellow Royal Australian College of General Practitioners (RACGP)  
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### **Attachments:**

Letters to former Deputy Premier Jeff Seeney

## Additional information

Letter of Notice to Victorian Premier, Hon Daniel Andrews

<http://waubrafoundation.org.au/resources/letter-notice-victorian-premier-daniel-andrews-december-5-2014/>

Letter to Victorian Premier re reduction of setback distance between wind turbines and homes

<http://waubrafoundation.org.au/resources/vic-premier-andrews-re-changes-wind-development-planning-regulation/>

Literature Reviews containing scientific research evidence of the physiological effects of infrasound  
National Institute of Environmental Health Sciences, (NIEHS) USA, 2001

<http://waubrafoundation.org.au/resources/infrasound-brief-review-toxicological-literature/>

Russian Literature Review of Biological effects of infrasound, by Dr Vladimir Stepanov

<http://waubrafoundation.org.au/wp-content/uploads/2015/04/stepanov-dr-vladimir.pdf>

Summary of the Implications of Steven Cooper's acoustic investigation at Cape Bridgewater for Pacific Hydro

<http://waubrafoundation.org.au/resources/acoustic-engineering-investigation-at-cape-bridgewater-wind-facility/>

NHMRC workshop comments in June 2011 by UK Acoustician Professor Geoffrey Leventhall that "noise annoyance" is the same as "Wind Turbine Syndrome"

<http://waubrafoundation.org.au/resources/leventhall-g-comments-nhmrc-june-2011-wind-turbine-syndrome-symptoms-same-as-noise-annoyance/>

Waubra Foundation: Recent Summary of Adverse Health Effects, 1<sup>st</sup> June, 2014

<http://waubrafoundation.org.au/resources/wind-turbine-noise-adverse-health-effects-june-2014/>

Waubra Foundation: Open letter to NHMRC re flaws in 2014 Systematic Literature Review, 2014

<http://waubrafoundation.org.au/resources/waubra-foundation-open-letter-nhmrc-re-systematic-literature-review/>

Waubra Foundation: Submission to the Australian Federal Government RET Review, 2014

<http://waubrafoundation.org.au/resources/renewable-energy-target-review-waubra-foundation-submission-2014/>

Explicit Cautionary Notice

<http://waubrafoundation.org.au/about/explicit-cautionary-notice/>

Explicit Warning Notice

<http://waubrafoundation.org.au/2013/explicit-warning-notice/>

Letter to AMA and recent literature review, Emeritus Professor Alun Evans, Epidemiologist, Ireland, 2014

<http://waubrafoundation.org.au/resources/evans-prof-emeritus-alun-dismiss-any-adverse-effects-absurd-view-mounting-evidence/>

Letter to AMA by Swedish Otoneurologist Dr Hakan Enbom

<http://waubrafoundation.org.au/resources/enbom-h-infrasound-from-wind-turbines-can-trigger-migraine-and-related-symptoms/>

Letter to AMA from Danish Occupational Health Physician, Dr Mauri Johansson, 2014

<http://waubrafoundation.org.au/resources/johansson-dr-mauri-m-d-highly-alarming-position-paper-from-medical-association-ama/>

Letter to AMA from Professor Robert McMurtry, Canada, 2014

<http://waubrafoundation.org.au/resources/prof-robert-mcmurtry-former-dean-medicine-writes-ama/>

Letter to AMA from NZ scientist Dr Bruce Rapley, New Zealand. 2014

<http://waubrafoundation.org.au/resources/rapley-b-letter-ama-audibility-and-effects-infrasound/>

Article by Professor Salt and Professor Lichtenhan in the Winter Edition of Acoustics Today, 2014

<http://waubrafoundation.org.au/resources/salt-n-lichtenhan-j-t-how-does-wind-turbine-noise-affect-people/>

Physicians for Human Rights, “**Leave No Marks**” 2007 with particular reference to pp 22 – 26 relating to the use of sleep deprivation and sensory bombardment with noise as methods of torture

<http://physiciansforhumanrights.org/library/reports/leave-no-marks-report-2007.html>

## **Evidence for 10km acoustic impact zone from 2 – 3 MW turbines**

Waubra Foundation’s Explicit Cautionary Notice, 29<sup>th</sup> June 2011 first mentioned health and sleep problems reported by residents directly to the Waubra Foundation, from out to 10km from existing wind turbines

<http://waubrafoundation.org.au/about/explicit-cautionary-notice/>

## **Acoustic field evidence of wind turbine noise extending out to 10km**

NASA research from **1985** by William Willshire

<http://waubrafoundation.org.au/resources/nasa-long-range-down-wind-propagation-low-frequency-sound/>

Professor Colin Hansen’s ongoing work and opinions relating to wind turbine noise out to 10km from Waterloo wind turbines is available below.

His team’s fieldwork at Waterloo was reported prior to the NHMRC’s latest position statement, but they ignored the information it contained. Their fieldwork is reported here:

<http://waubrafoundation.org.au/resources/hansen-zajamsek-hansen-noise-monitoring-waterloo-wind-farm/>

Professor Hansen’s opinion based on acoustic evidence from Waterloo was included in his letter to the Victorian Department of Health, regarding false and misleading statements about infrasound in their technical document issued in 2013, since relied upon by many parties to continue to approve wind developments.

<http://waubrafoundation.org.au/resources/prof-colin-hansen-writes-victorian-dept-health-recent-wind-farms-health-doc/>

Steven Cooper’s acoustic data from Waterloo wind development (8km)

<http://waubrafoundation.org.au/resources/are-wind-farms-too-close-communities/>

Mr Les Huson’s expert evidence from the Cherry Tree case, relating to Macarthur, where he found that there was no attenuation of infrasound between 1.8km and 6.4 km from the nearest wind turbines, indicating that wind turbine generated infrasound will be travelling for very large distances (much greater than 10km)

<http://waubrafoundation.org.au/resources/huson-l-expert-evidence-at-vcat-cherry-tree-hearing/>

**The various population noise impact surveys done in Australia are here:**

<http://waubrafoundation.org.au/library/community-noise-impact-surveys/>

## **Waterloo, South Australia – VESTAS V 90 (37 along a ridge)**

Mrs Mary Morris's 2012 survey conducted at Waterloo in South Australia. This survey was the only Australian research included in the 2014 NHMRC Systematic Literature Review

<http://waubrafoundation.org.au/resources/waterloo-wind-farm-survey-2012/>

This 2012 survey by Mrs Morris was based on one conducted in 2011 by Frank Wang, an Adelaide University Masters student, but the population surveyed in Wang's survey was only out to 5km

<http://waubrafoundation.org.au/resources/evaluation-wind-farm-noise-policies-south-australia/>

Mrs Morris then compiled this information in 2013 showing what happened when the turbines at Waterloo were off for a week <http://waubrafoundation.org.au/resources/morris-m-waterloo-case-series-preliminary-report/>

## **Cullerin Range, NSW, 2 MW Repower turbines, sited on a ridge**

Mrs Schneider's 2012 and 2013 population noise impact surveys show the extent of the sleep deprivation. Nothing has been done about the severe night time noise related sleep disturbance and adverse health impact for these NSW residents by any NSW government department, despite many complaints which are documented in the 2013 survey.

<http://waubrafoundation.org.au/resources/cullerin-range-wind-farm-survey-august-2012/>

<http://waubrafoundation.org.au/resources/schneider-p-cullerin-range-wind-farm-survey-follow-up-july-august-2013/>

## **Macarthur Wind Development, 140 3 MW V 112 VESTAS wind turbines, sited on flat land in Victoria**

This survey was conducted only 6 months since the wind development commenced operating. Residents report being far more adversely impacted now, because of the predictable and known adverse cumulative health effects of chronic sleep deprivation and chronic stress.

<http://waubrafoundation.org.au/resources/macarthur-wind-energy-facility-preliminary-survey/>

Evidence from Macarthur Wind Development Residents and acoustician Mr Les Huson was heard during the Cherry Tree Court case before the Victorian Civil Administrative Appeal Tribunal in 2013. Links to affidavits from Macarthur residents relating to that court case are below:

Mrs Maria Linke (lives 5km away, with her husband and four children – sleep adverse affected immediately)

<http://waubrafoundation.org.au/resources/linke-m-witness-statement-vcac-cherry-tree-hearing/>

Mrs Jan Hetherington, widow, glass artist, working from her home 3km away from nearest wind turbine

<http://waubrafoundation.org.au/resources/hetherington-j-witness-statement-vcac-cherry-tree-tribunal/>

Mr Andrew Gardner, Farmer, home is 1.8km away from nearest wind turbine

<http://waubrafoundation.org.au/resources/gardner-statement-vcac-cherry-tree-hearing/> (1.8km away)