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Waubra Foundation Statement re Simon Chapman & Fiona Crichton's Book

The Foundation is aware of the launch of the Chapman and Crichton book "Wind Turbine Syndrome: a Communicated Disease" on 1st December, 2017 and the accompanying media interest in the issue of wind turbine noise, and will be reading it carefully due to a history of frequent misrepresentation of facts and defamation¹ on the part of the first author.

Before reading and critiquing the book, we note the following facts:

1. The Waubra Foundation is, and has always been, a charity concerned about the adverse health effects of excessive industrial noise pollution on humans, with a particular interest in the lower frequencies below 200 Hz.^{2 3}
2. The Foundation has not restricted our attention to wind turbine noise, and it is a deliberate and commonly repeated falsehood by some, including in the media, to assert otherwise. We note that those who repeat this falsehood, and ignore the facts, are often financially or ideologically linked to the wind industry.
3. The Foundation has assisted noise impacted and noise sensitized local residents by the provision of a range of practical advice, and where we can do so, access to trusted, ethical, independent acousticians with expertise and interest in the area of lower frequency noise and vibration.
4. Residents' locations include Lithgow NSW (Coal fired power station & underground coal mine), the Hunter Valley Region in NSW (coal mines), the gas fields in Queensland near Tara and Chinchilla (Coal Seam Gas), gas fired power stations in NSW (Uranquinty) and Victoria (Port Campbell) in addition to multiple industrial wind power facilities in South Australia, Victoria, New South Wales and Queensland. We have also assisted residents living in urban areas in Brisbane, Sydney, Melbourne and Adelaide affected by excessive industrial low frequency noise.
5. In some instances, where our limited funds have allowed it, the Foundation has provided funding towards travel expenses for acoustic field research, or funded acoustic monitoring where the noise sources have included coal mines, a coal fired power station, and industrial scale wind turbines.⁴
6. More recently the Foundation has provided R & D funding that has resulted in the development of more affordable broad spectrum acoustic recording equipment, now being deployed by some of these local residents to gather acoustic exposure data from inside their own homes near a gold mine, a coal mine, a coal fired power station, and numerous industrial wind power developments. In addition to these locations in Australia, this new equipment is also being purchased and deployed by international researchers and residents in Denmark, Ireland, Belgium, England, Scotland, Portugal, and Canada. We look forward to residents being able to better protect themselves from noise nuisance as a result of this technology being made available.
7. With respect to wind turbine noise specifically, we note that Noise Nuisance and other litigation for wind turbine neighbours who have been in a financial position to protect their legal rights has

¹ <http://waubrafoundation.org.au/resources/professor-simon-chapman-apologises-sarah-laurie/>

² <http://waubrafoundation.org.au/about/objectives/>

³ <https://www.acnc.gov.au/RN52B75Q?ID=B17A5108-A8C0-40F7-A4D2-4CC0495E757D&noleft=1>

⁴ see our annual accounts, publicly available via the ACNC website link above, for further information

resulted in wins for residents with either turbine shut downs, or turbine operational curtailment to reduce the noise emissions and even removal of wind turbines; or successful financial settlement involving property buy outs with non disclosure clauses. These include but are not confined to the following locations:

- a. Falmouth,⁵ and other locations in the USA ⁶
 - b. Portugal ⁷
 - c. Germany ⁸
 - d. United Kingdom ⁹
 - e. Ireland ¹⁰
8. We note the recent laboratory research led by the Swedish researchers Smith et al ¹¹, who found that strong amplitude modulated low frequency noise disturbed sleep, even in young fit healthy study participants, and even after only very limited exposure (3 nights).
 9. We also note the opinions of UK Acoustician Geoff Leventhall with respect to amplitude modulation. Leventhall stated in his evidence to the senate inquiry on 23 June 2015 that it is amplitude modulation that *“upsets people”*.¹²
 10. We note that the WHO’s Night Noise Guidelines for Europe published in 2009 outlines in great detail how noise which affects sleep duration and quality can lead to a range of serious adverse health effects from environmental sleep disorders.¹³ It would, of course be difficult to disagree with 60 years of research acknowledged by the WHO in its various publications in the field of excessive environmental noise.
 11. We note that there is a wealth of scientific and clinical evidence showing that sleep deprivation and poor sleep quality (regardless of the cause) is well known to be associated with deteriorating health, and that even the paid medical expert witness used by the wind industry in Australia, Gary Wittert, has conceded that sleep deprivation itself is an adverse health effect.¹⁴
 12. We note that in his evidence to the second senate inquiry on 14th November, 2012 Simon Chapman acknowledged that excessive noise can disturb sleep and that sleep disturbance can have an adverse health effect, in response to questioning by Senator Nick Xenophon.¹⁵
 13. We note that sleep disturbance is one of the areas of study for the two NHMRC funded research projects into wind turbine noise adverse health effects.¹⁶
 14. We note that it was known to acousticians and the UK government in 1996 that based upon a survey conducted *“once nearby residents are sensitized to noise they are unlikely to get used to it over a relatively short period of time”* - Final Report of the Wind Turbine Noise from Wind Turbines Working Group entitled *“The Assessment and Rating of Noise from Wind Turbines”*.¹⁷ According to a wind

⁵ <https://www.scribd.com/document/356171381/Falmouth-vs-Barry-and-Diane-Funfar-Judge-Moriarty-Decision-JUNE-2017>

⁶ <https://www.michigancapitolconfidential.com/20951>

⁷ <https://www.wind-watch.org/documents/portuguese-supreme-court-orders-4-wind-turbines-removed/>

⁸ <http://www.spiegel.de/international/germany/wind-energy-encounters-problems-and-resistance-in-germany-a-910816-2.html>

⁹ <http://waubrafoundation.org.au/resources/davis-v-tinsley-noise-wind-farm-settlement-uk-july-2011/>

¹⁰ <https://www.pressreader.com/ireland/irish-examiner/20170615/281840053654290>

¹¹ <http://waubrafoundation.org.au/resources/smith-m-g-et-al-physiological-effects-wind-turbine-noise-sleep/>

¹²

<http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22committees%2Fcommsen%2F076b72d-b-0da0-4ca6-bffe-b0a0cea05550%2F0000%22>

¹³ http://www.euro.who.int/_data/assets/pdf_file/0017/43316/E92845.pdf

¹⁴ evidence given in Waubra Foundation’s appeal against the ACNC’s revocation of Health Promotion Charity Status.

¹⁵ <http://waubrafoundation.org.au/resources/hansard-excessive-noise-bill-public-hearing-14-november-2012/> see p 47

¹⁶ <https://ajp.com.au/news/studies-investigate-wind-turbine-syndrome/>

¹⁷ <http://wind.scruss.com/ETSU-R-97-ocr.pdf> see page 42

industry consultant acoustician working in Australia, this ETSU 97 report is the document upon which noise pollution regulations and standards used in Australia are based.¹⁸

15. We note that both the Queensland Department of Health and the Victorian Department of Health have acknowledged the issues of “low frequency noise sensitivity” and “low frequency noise sensitization” in documents including information about noise from coal seam gas facilities¹⁹ and wind turbines.²⁰ Noise sensitization means that there is an increased response to the same noise stimulus with ongoing exposure. This sensitization effect is precisely what residents living near sources of dynamically pulsed, amplitude modulated noise, commonly report. These people also then report that they react to other sources of industrial noise that previously did not affect them, such as compressors from heating and cooling systems and fans. This is known as “cross sensitization”.^{21 22}
16. We note that the Health Canada study was not a longitudinal study.²³ It is therefore incorrect and misleading of Simon Chapman, who purports to be an epidemiologist, to describe it as “*the largest, most important longitudinal study run by Health Canada*” in a recent media article opinion piece.²⁴ No such longitudinal study has ever been conducted, and is long overdue. Such a study would confirm the noise sensitization effect previously mentioned in the 1996 ETSU 97 document.
17. We further note that the lead author of the Health Canada study, David Michaud, has admitted whilst being questioned at the Acoustical Society of America Wind Turbine Noise Group meeting at Salt Lake City, May 2016 that the Health Canada study was not designed to investigate whether or not a direct causal relationship exists.²⁵ The cross sectional nature of that study design does not permit conclusions about causality to be drawn. It is therefore misleading of Simon Chapman to state, in the same media opinion piece in the Guardian, that “*This study provided no support for the direct cause hypothesis*” without also stating that the Health Canada study by its very nature was not designed to investigate direct causation.²⁶
18. We note that neither Simon Chapman nor Fiona Crichton have ever measured and recorded the sound inside people’s dwellings (regardless of the noise source) with concurrent physiological monitoring including sleep / EEG studies and heart rate monitoring. Nor have Chapman and Crichton then re-exposed the noise sensitized people to the sound taken from their homes in a double blind provocation study, to scientifically determine whether or not the reported sensations or physiological reactions are present and can be reliably and repeatedly reproduced in a laboratory setting. This would be the *scientific* way of determining whether or not the sound is exerting a direct effect on the physiology of the brain and the body, as a growing body of acoustic, neuroscientific and sleep research suggests is occurring.^{27 28 29}
19. We note that neither Simon Chapman (as a sociologist, with a PhD which examined what amounted to misleading and deceptive conduct by Tobacco companies to deny the adverse health effects of cigarettes which were known to them), nor Fiona Crichton (as a lawyer and “social psychologist”),

¹⁸ <http://waubrafoundation.org.au/wp-content/uploads/2014/04/Turnbull-Turner-Recent-Developments-Wind-Farm-Noise.pdf>

¹⁹ https://www.health.qld.gov.au/_data/assets/pdf_file/0027/428634/report.pdf see p 14, section 4.2.2, 4th paragraph

²⁰ <http://waubrafoundation.org.au/wp-content/uploads/2013/05/Wind-farms-sound-and-health-Technical-information-WEB-29April2013.pdf> see p 16, section 7.5.3

²¹ For a case report of such cross sensitization, see

http://www.icben.org/2017/ICBEN%202017%20Papers/SubjectArea10_Bakker_1001_3872.pdf

²² <http://en.friends-against-wind.org/testimonies/my-101st-formal-complaint-to-agl>

²³ For detailed critiques of the Health Canada study please see <http://waubrafoundation.org.au/library/responses-health-canada/>

²⁴ <https://www.theguardian.com/commentisfree/2017/nov/29/how-to-catch-wind-turbine-syndrome-by-hearing-about-it-and-then-worrying>

²⁵ Personal communication with multiple attendees at that conference, including Australian Acoustician Steven Cooper

²⁶ <https://www.theguardian.com/commentisfree/2017/nov/29/how-to-catch-wind-turbine-syndrome-by-hearing-about-it-and-then-worrying>

²⁷ <http://waubrafoundation.org.au/resources/smith-m-g-et-al-physiological-effects-wind-turbine-noise-sleep/>

²⁸ <http://waubrafoundation.org.au/resources/ingaki-et-al-analysis-aerodynamic-sound-noise-generated-by-large-scaled-wind-turbines/>

²⁹ <http://waubrafoundation.org.au/resources/cooper-new-methodology-for-investigating-ilfn-complaints/>

have the necessary technical skills and educational background to perform such an acoustic investigation, physiological investigation, or laboratory study as outlined immediately above, and nor have they collaborated with others to conduct such a study.

20. Neither Chapman nor Crichton have practiced medicine in any capacity, nor are they qualified to do so. In contrast, there are numerous trained, registered, practicing medical doctors, in Australia and internationally, who over the last ten years have treated patients with the characteristic symptoms, including repeated sleep disturbance, which Dr Nina Pierpont described as Wind Turbine Syndrome. The list of Medical Practitioners includes but are not limited to the following:

- Dr Amanda Harry, Cornwall, UK ³⁰
- Dr David Iser, Toora, Victoria, Australia ³¹
- Dr Wayne Spring, Ballarat, Victoria, Australia ³²
- Dr Andja Mitric Andjic, formerly Leonards Hill, Victoria, Australia ³³
- Dr Herb Coussons, USA ³⁴
- Dr Sandy Reider, Vermont, USA ³⁵
- Dr Jay Tibbetts, Brown County, USA ³⁶

21. Dr Michael Nissenbaum, a medical doctor from the USA (Vermont) and Canada and author of a peer reviewed published study ³⁷ examining sleep disturbance in wind turbine noise exposed residents at two locations in the USA explained the dangers inherent in making a diagnosis of “a nocebo effect” without thorough investigation, in his evidence to the second Australian Federal Senate inquiry. His considered response to a question on notice about the nocebo effect and non medical people who offer it as a suggested diagnosis is reproduced below: ³⁸

“On 'nocebo', if a physician provides the diagnosis of 'nocebo' (a psychologically mediated effect analogous to a 'psychosomatic illness/response'), medical protocols dictate that it be done subsequent to a process of thoroughly excluding the possibility of any pathophysiological pathways that are plausible, more likely, or more important (because of serious downstream implications) to consider.

The 'nocebo' concept is inapplicable and it would be irresponsible to apply it as an explanation for the chronic sleep disorders which are the result of often unremembered night-time arousals related to noise (a simple physiological chain of events that is not medically controversial in the least, and which are detectable by validated investigational tools such as used in our study). It's rushed utilization here would be a conjectural, unfair and cruel exercise that would in effect tell people that while what they are feeling may be real, the origin is 'all in their head' rather than in well understood physiological interactions between the sleep mechanism and noise.

Finally, suggesting a diagnosis of 'nocebo' without investigating, 'boots on the ground', for more plausible, better understood, or more logical causes of a medical condition would normally constitute medical malpractice in most Western-based medical systems, including Australia. Individuals who are not physicians are not limited by this professional mandate or even necessarily this conceptual framework”. (bold my emphasis)

³⁰ <http://waubrafoundation.org.au/resources/dr-amanda-harry-groundbreaking-survey-sick-residents/>

³¹ <http://waubrafoundation.org.au/resources/dr-david-iser-2004-conducts-first-survey-patients-living-near-wind-project/>

³² <http://waubrafoundation.org.au/2017/wind-turbines-echo-seasickness-dr-wayne-spring/>

³³ <http://waubrafoundation.org.au/resources/rural-gp-forced-abandon-her-home-speaks-out/>

³⁴ <http://en.friends-against-wind.org/health/medical-testimony-of-dr-coussons>

³⁵ <http://waubrafoundation.org.au/library/section/dr-sandy-reider/>

³⁶ <http://waubrafoundation.org.au/library/section/dr-jay-tibbetts/>

³⁷ <http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=2012;volume=14;issue=60;spage=237;epage=243;aulast=Nissenbaum>

³⁸ <https://docs.wind-watch.org/Nissenbaum-Nocebo-senate-inquiry-11-22-2012.pdf>

22. We note the descriptor of Fiona Crichton as a “social psychologist”. It is unclear to the Foundation whether Crichton has ever provided clinical psychological care to anyone, let alone someone who is noise sensitized to any source of industrial noise, let alone wind turbine noise. Search of the New Zealand Psychologists Board on 1st December, 2017 found no record of anyone with the surname of Crichton who is currently registered to provide psychological services in New Zealand.³⁹
23. In contrast, Psychologists with first hand knowledge of the serious nature of the health problems reported by residents living near wind turbines and who have been prepared to speak publicly include Australian psychologist Peter Trask,⁴⁰ and American psychologists and researchers Professor Arline Bronzaft,⁴¹ and Dr Helen Parker.⁴²
24. Australian Psychologist Peter Trask, who *has* provided clinical care to wind turbine noise sensitized people in Australia, had this to say in his submission to the second Australian Senate Inquiry:⁴³

“As a practising psychologist, I have only recently become aware of this WTS first-hand, although for some years I have had some peripheral exposure, via the mainstream media. More recently however, I have met many individuals directly affected by WTS, and have had the privilege to be providing two individuals with psychological treatment and support.

Based on my recent experiences and interactions with such affected individuals, I am satisfied that this WTS condition is real. This conclusion of mine is based upon both hearing the stories of affected individuals and being aware of and having access to the limited yet growing scientific body of evidence highlighting this deleterious syndrome.”

This syndrome is not, in my view, a psychosomatic illness or a nocebo effect. If this syndrome was primarily a psychosomatic condition, the genesis of the WTS would be rooted in inappropriate or irrational cognitive processing and my assessment of affected individuals elicits no evidence to support this. Moreover, psychosomatic conditions require a level of conscious awareness of adverse stimuli to activate somatic symptoms in the body. Conversely, I believe that the WTS affects people at a sub-conscious level, creating somatic symptoms without a conscious (or cognitive) awareness of why. Accordingly, this WTS is potentially a very insidious syndrome as the usual cognitive associations are not established till much later. At this later stage, psychosomatic responses may emerge, similar to people affected by post-traumatic stress disorder, but only retrospectively.

With regard to the nocebo effect (believing that one will be adversely affected in exposure to specific stimuli previously labelled as toxic or dangerous), the various theories of motivation ought to be acknowledged. Clearly, motivation among humans is a complex phenomenon. Nevertheless, for those affected by WTS that I have met and treated, there is no plausible motivation-based explanation for why they would want to be sick nor expect to be so, based on their prior life and medical histories. Furthermore, these are people who have possessed a very close affinity and love for their homes and locations, and so, have endured this syndrome for extended periods, and then in desperation, like environmental refugees, have had to leave their homes, with substantial regret.

I shall leave the scientific and/or neurological theories and explanations to the experts. Nevertheless, the existence of low frequency sound energy, produced by wind turbines, and inaudible to the human ear, may be the reason for this syndrome. While this low frequency noise or sound energy (aka infrasound) may be inaudible and thus not able to be consciously

³⁹ <http://www.psychologistsboard.org.nz/search-the-register>

⁴⁰ <http://waubrafoundation.org.au/resources/psychologist-peter-trask-calls-government-listen/>

⁴¹ <http://journals.sagepub.com/doi/abs/10.1177/0270467611412548>

⁴² <https://www.masterresource.org/windpower-health-effects/secret-silent-wind-peril-part-ii/>

⁴³ <http://waubrafoundation.org.au/resources/psychologist-peter-trask-calls-government-listen/>

perceived by the human ear, it does appear that the ear's vestibular system is still capable of perceiving the presence of this infrasound, and so send signals to the central nervous system for processing, in this case without the conscious awareness of the affected individual. Despite this, it appears that this infrasound stimuli activates the automatic survival response, more commonly known as the fight/flight/freeze response. Consequently, somatic symptoms are experienced by affected individuals. These symptoms include hyper-arousal, anxiety, racing heart, nausea, muscle tension, panic, concentration and attention problems, memory difficulties, and more. At night, these symptoms can lead to insomnia and sleep disturbance, and consequent stress and emotional instability in the waking hours.

On the basis that this syndrome is not a psychosomatic illness (in the first instance) or nocebo effect, relief for affected people may only be achieved by removing them from the environment apparently responsible for catalysing their symptoms. Dialogue with affected people provides anecdotal evidence of the efficacy of this approach. Sadly however, chronic exposure to infrasound over an extended period, may more permanently alter the neurological state of affected people, and in such cases, we observe trauma-like symptoms among this cohort.”

25. With respect to Wind Turbine Syndrome specifically, we note that even an acoustician often used by the wind industry as an expert witness, Geoff Leventhall, has acknowledged the usefulness of Dr Nina Pierpont’s study in identifying risk factors for people developing what he (Leventhall) refers to as stress symptoms from audible noise. The relevant extract of Leventhall’s commentary during his presentation at the NHRMC workshop in June 2011 is below: ⁴⁴

“But what struck me was that the results were already well-known. There is nothing new in the wind turbine syndrome. Except Pierpont showed us a predisposition due to existing health problems. These are what she described as the symptoms for wind turbine syndrome: Sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory and on it goes, etc. etc.

Now when I saw those I thought to myself I’ve been familiar with these for years. These are exactly the same as the stress effects due to noise annoyance. And here are these that I’ve just shown on the previous slide for wind turbine syndrome and these are taken from a paper I gave in 2002, long before I’d ever heard of Pierpont, showing the effects of noise, the very stressful effects which annoyance by noise can have on a small number of people.

26. In 2003 Leventhall coauthored a UK Government document that stated *“There is no doubt that some humans exposed to infrasound experience abnormal ear, CNS, and resonance induced symptoms that are real and stressful. If this is not recognised by investigators and their treating physicians ... a psychological reaction will follow and the patient’s problems will be compounded”*.⁴⁵
27. Finally, we note that Simon Chapman has been very vocal about the issue of non-disclosure of conflicts of interest in the tobacco industry research arena, stating *“Having any sort of financial relationship with a funder with deep commercial interests in the outcomes of the research is the most basic example of a conflict of interest that needs declaring”*.⁴⁶ We further note that Chapman received money from the wind industry in early 2013,⁴⁷ but rarely declares his own remuneration and

⁴⁴ <http://waubrafoundation.org.au/resources/leventhall-g-comments-nhmrc-june-2011-wind-turbine-syndrome-symptoms-same-as-noise-annoyance/>

⁴⁵ <http://waubrafoundation.org.au/resources/review-published-research-low-frequency-noise-leventhall/>

⁴⁶ <http://theconversation.com/what-to-make-of-tobacco-industry-research-declarations-of-no-conflicts-of-interest-52295>

⁴⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4264329/>

consequent financial conflict of interest, and nor do the media outlets who frequently quote him as an expert in this area.⁴⁸

⁴⁸<https://stopthesethings.com/2015/03/16/simon-chapman-will-grant-jacqui-hoepner-the-wind-industrys-health-expert-great-pretenders/>