

Dear Friends and Neighbours:

September 28, 2015

WAIT-PW is reaching out to select residents living in close proximity to Suncor's Cedar Point Industrial Wind Power Plant Project. Other Ontario residents who have lived in close proximity to other wind projects have complained that nearby turbines have caused unwanted noise and health related side effects. Adverse health effects have been reported as far as 10 km away.

In May of this year, at a Senate Inquiry in Australia involving industrial wind turbines, Dr. Robert McMurtry, Professor Emeritus at Western University, London, Ontario, was asked what proportion of a community that lives near industrial wind turbines actually experiences any symptoms. His response was "*The lowest number I have seen is 5%. The highest number I have seen is over 30 percent. There is a range.*" Dr. McMurtry went on to say, "*...with ongoing exposure, the people I have seen who have been adversely affected become worse,*" and, "*I have found that some do not start experiencing symptoms until a year or two out.*" Dr. McMurtry also indicated the young and elderly are particularly vulnerable.

WAIT-PW has prepared this information package to assist you. Included in this information package is:

1. What Residents Near Other Projects Are Doing to Protect Their Health
2. Cedar Point Residents' Diary: Description of Terms Used on the Diary Entry Sheet
3. Diary Page for Residents Living Close to Cedar Point Industrial Wind Turbines¹
4. What to do if you experience adverse health affects
5. Dr. McMurtry's top 10 key points to Australian Senate Select Committee on Industrial Wind Turbines and Health

Given the expanding body of scientific literature about the adverse health impacts of Industrial Wind Turbines when sited too close to people, we believe it is important for everyone living in close proximity to have a baseline physical carried out by your doctor. We also believe it is important for everyone to record their experiences both **before** the turbines begin operation and **after** the turbines begin operation. The information included in this package will assist those who choose to carry out these recommendations.

To be clear, WAIT-PW does not believe the majority of residents will be affected in a negative way by industrial wind turbines; however, it is our opinion, as Dr. McMurtry has stated, there will be some residents impacted and it is not possible to predict the actual percentages, the specific individuals who may be affected, or the type of adverse responses experienced.

Regarding our legal suit, we are moving ahead with an Appeal to the Divisional Court involving the approval of Suncor's Industrial Wind Power Plant Project. WAIT-PW volunteers, most of who do not live near a turbine, have worked tirelessly for this community and for you in particular - the residents living closest to the turbines. We cannot continue to support you and our community without further donations. PLEASE, we need your financial assistance. Communications with members of the community, such as this communication, involve costs.

Donations can be made through the following channels:

1. Online donations at www.wait-pw.ca
2. Cheque to WAIT-PW P.O. Box 219, Plympton-Wyoming, Ontario, N0N 1T0
3. Directly at Southwest Credit Union.

Please feel free to contact us if you would like some assistance with this information or have any questions. We are here to help regardless if you are a turbine leaseholder or not. If you do not wish to be contacted by WAIT-PW in the future, please let us know and we will honour your wishes. Please feel free to contact Pam Ernst or Floyd Maidment if you have any questions or require assistance (519-899-4438, maidernst@gmail.com).

Best regards,

WAIT-PW Leadership Team

What residents near other projects are doing to protect their health and environment

1. Started a personal Diary and prepared their own baseline assessment of their family's health status before turbines became operational including:
 - Quality of sleep
 - Current stress levels
 - Any mood problems such as depression or anger
 - Normal recall of events or names or terms
 - Pre- and early-menopausal women include general menstrual cycle
 - Additional Comments: e.g. activities enjoyed inside and outside their dwelling; wildlife present or absent **before** and **after** turbine operation (bats, raptors, deer, etc.)
2. Scheduled an appointment with their family doctor:
 - Provided their physician with a copy of the peer reviewed and published reference paper entitled: *Diagnostic criteria for adverse health effects in the environs of wind turbines*, by Robert McMurtry and Carmen Krogh, available from WAIT-PW or online at: <http://shr.sagepub.com/content/5/10/2054270414554048.full.pdf>
 - Requested a baseline of their health status
 - Requested a complete physical including the following: blood work (complete blood counts, mineral and hormone levels), blood pressure, cortisol measurements, glucose tolerance test, thyroid function tests
 - Requested referrals for a baseline hearing test, a cardiac stress test, a respiratory evaluation and an eye test from an ophthalmologist
 - Presented their doctor a copy of their own personal assessment and asked that it be part of their medical record
 - Requested that any pre-existing medical conditions be noted in the baseline health assessment
 - Requested a copy of their medical record including the doctor's notes associated with the appointment
3. Monitored their day-to-day health and noted any changes in their journal (both **before** and **after** turbines became operational).

Summary of the McMurtry/Krogh paper entitled *Diagnostic criteria for adverse health effects in the environs of wind turbines*

In an effort to address climate change, governments have pursued policies that seek to reduce greenhouse gases. Alternative energy, including wind power, has been proposed by some as the preferred approach. Few would debate the need to reduce air pollution, but the means of achieving this reduction is important not only for efficiency but also for health protection. The topic of adverse health effects in the environs of industrial wind turbines (AHE/IWT) has proven to be controversial and can present physicians with challenges regarding the management of an exposure to IWT. Rural physicians in particular must be aware of the possibility of people presenting to their practices with a variety of sometimes confusing complaints. An earlier version of the diagnostic criteria for AHE/IWT was published in August 2011. A revised case definition and a model for a study to establish a confirmed diagnosis is proposed.

Bio: Dr. Robert Y. McMurtry is the former Dean of Medicine for the University of Western Ontario. He was a member of the Health Council of Canada for 3 1/2 years and a member and special advisor to the Royal Commission under Roy Romanow on the future of health care in Canada. Dr. McMurtry was a visiting Cameron Chair to Health Canada for providing policy advice to the Minister and Deputy Minister of Health. He was the Founding and Associate Deputy Minister of Population & Public Health, Canada. Dr. McMurtry also sat on the National Steering Committee on Climate Change and Health Assessment. Presently Dr. McMurtry is Professor (Emeritus) of Surgery, University of Western Ontario.

Bio: Carmen Krogh is an independent, full time volunteer and published researcher regarding health effects and industrial wind energy facilities and shares information with: communities; individuals; federal, provincial and public health authorities, wind energy developers; the industry; and others. She is an author or co-author of peer reviewed articles and conference papers presented at wind turbine noise scientific conferences and has held senior executive positions at a teaching hospital, as a drug information researcher, a professional organization and Health Canada (PMRA). She is a former Director of Publications and Editor in Chief of the Compendium of Pharmaceuticals and Specialties (CPS), the book used by physicians, nurses, and health professionals for prescribing information in Canada.

Cedar Point Residents' Diary: Description of terms used on the diary entry sheet

Different Types of Effects: you can use the single letter to identify type of effect – i.e. **N, V, S**

N: Noise, can be heard

V: Vibration, the house, walls or loose items (dishes, cups, pictures on the wall) rattle. Ripples can be seen on water in a glass.

S: Sensation, a physical feeling, can be felt on part of the body or skin

Levels of Severity

- No impact (No perceived noise, vibration or sensation)
- Slight impact (Non intrusive) Noise can be heard, vibration and sensation can be felt, but none cause any change in behaviour or attitude, e.g. turning up volume of television; speaking more loudly; closing windows.
- Moderate Impact (Intrusive) Noise can be heard, vibration and sensation can be felt and cause small changes in behaviour and/or attitude, e.g. turning up volume of television: speaking more loudly; closing windows. Potential for non-awakening sleep disturbance.
- Substantial Impact (Disruptive) Causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion, moving to another room/basement in the house. There may be potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty getting back to sleep.
- Severe Impact (Physically Harmful) Significant changes in behaviour and/or inability to mitigate effect of noise or vibration or sensation leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening: loss of appetite, feelings of severe anxiety, significant medically definable harm such as migraines, leaving the home to get away from the noise/vibration/sensation

Some Examples of Self-Reported Responses due to Noise, Vibration or Sensation are

Headache, migraine,
Nausea,
Dizziness,
Pulsating pressure in the head,
Pressure in the ears,
Ringing in the ears,
Drowsiness (or lethargy, heaviness),
Sleep disturbance (difficulty falling asleep or frequent awakening)
Pressure in the chest,
Effect like heart racing,
Other - specify

Wind Condition:

1. still/calm
2. light breeze (wind can be felt on face, leaves in trees rustle)
3. medium breeze (leaves in constant motion)
4. moderate wind (raises dust, loose paper will blow around)
5. strong wind (large tree branches move, difficult to use umbrella)

Other Weather Conditions: for example: wind direction, gusting winds, rain, snow, temperature, etc.

What to do if you experience adverse health affects

1. Contact WAIT-PW regardless of whether you are a leaseholder or not, we are here to help.
 - P.O. Box 219, Plympton-Wyoming, ON, NON ITO
 - feedback@wait-pw.ca
 - Or Pam Ernst and Floyd Maidment 519-899-4438 maidernst@gmail.com
2. Lambton Health Unit – 1-800-667-1839 – ensure your complaint is recorded.
3. Ministry of the Environment – Spills Action Line – 1-800-268-6060. This is the formal channel for launching a complaint. Request a report #.
4. Contact your physician as described elsewhere in this information packet.
5. Contact the wind developer - Suncor at 1-866-344-0178 (this number may change in the future).

Why contact WAIT-PW?

WAIT-PW would like to develop a database of the impact of Suncor's industrial wind project. We feel this will be valuable information for you and for our community. If you choose to share your information with WAIT-PW, your identity, address, etc. can be kept confidential at your request. This information will also help WAIT-PW keep local politicians and the school board informed on the impact of Suncor's project. There are other channels in which complaints should be documented and recorded. WAIT-PW can assist in ensuring appropriate government officials are informed.

Did you know?

Adverse health complaints have been recorded in Suncor's other industrial wind power projects. In the Ripley Wind Power project, Suncor billeted some residents out of their homes for months at a time. Suncor eventually purchased some residents' homes in the wind project area. Researchers have been studying the effects of noise on human health since at least 1930. Although investigators may not know the exact nature of the relationship between noise and health impacts, or why noise affects some people differently than others, the evidence to date suggests that environmental noise pollution can have serious implications for public health. Varying degrees of evidence exist for a wide range of non-auditory [not related to hearing] health effects potentially stemming from noise exposures, including cardiovascular disease, hypertension, stroke, diabetes, sleep disturbance, endocrine effects, minor psychiatric disorders, and impaired cognitive development. Anecdotal evidence [and a growing body of scientific evidence] strongly suggests a connection between turbines and a constellation of symptoms including nausea, vertigo, blurred vision, unsteady movement, and difficulty reading, remembering, and thinking. Turbine noise is often deemed more annoying than transportation noise [air, rail, and road] because of its high variability in both level and quality. Unlike vehicle traffic, which tends to get quieter at night, turbines can sound louder at night. And they generate lower frequencies of sound, which tend to be judged as more annoying than higher frequencies and are more likely to travel through walls and windows.¹

Children and Noise and Health

We are particularly concerned about the health of our community's children, especially since Suncor's *Approval* sanctions placement of Industrial Wind Turbine Generators in proximity to where children spend their days – at school - and where they live and sleep – at home. We urge parents to be informed and vigilant.

Over 20 studies have reported that noise adversely affects children's academic performance.² Dr. Arline Bronzaft was one of the first to document learning impairment in children exposed to noise back in 1975. She examined the reading scores of children in a school adjacent to train tracks in New York City. Reading scores of children in classrooms facing the tracks were one year behind those of children on the other side of the building. Dr. Arline Bronzaft came to Camlachie and appeared as our expert witness in the Tribunal hearing. She expressed concern for our communities' children based on her expert knowledge in this area.

Noise appears to affect children's respiratory systems. For example, neighbourhood noise was found to be more of a risk factor than air pollution for adverse health outcomes such as asthma in children in urban settings.³

The World Health Organization, in a Training Package for the Health Sector, identifies noise as a risk to children⁴. Vulnerable populations include: the fetus and babies; preterm, low birth weight and small for gestational age babies; children with dyslexia and hyperactivity; children on ototoxic medication. Adverse Effects from excess noise exposure can be direct or indirect. Direct ear damage includes hearing loss. Indirect adverse effects include: physiological – stress effects (blood pressure and stress hormones); psychological – mental health, sleep disturbance, annoyance/isolation; cognitive effects including reading, concentration, memory.

World Health Organization⁵ has indicated impairment of early childhood development and education caused by noise may have lifelong effects on academic achievement and health. Studies and statistics on the effects of chronic exposure to aircraft noise on children have found: consistent evidence that noise exposure harms cognitive performance; consistent association with impaired well-being and motivation to a slightly more limited extent; moderate evidence of effects on blood pressure and catecholamine hormone secretion.

"Hypersensitivity to sound" is among the list of pre-existing medical conditions that appears to be exacerbated by noise.⁶ The additional noise and low-frequency sound produced by the wind turbines may add to the burden of environmental noise that the ASD [Autistic Spectrum Disorder] population is already coping with, including exposures at home and at school.⁷

¹ Excerpts from - *Wind Turbines: A different breed of noise?* *Environmental Health Perspectives* 122 1 Jan 2014, Nate Seltnerich, *Envir. Health Perspectives* is peer reviewed

² World Health Organization, *Children and Noise, Children's Health and the Environment, WHO Training Package for the Health Sector*, www.who.int/ceh

³ Niemann H, Bonnefoy X, Braubach M, Hecht K, Maschke C, Rodrigues C and Robbel N. *Noise induced annoyance and morbidity results from the pan-European LARES study*. *Noise Health* 2006

⁴ Supra – please see *World Health Organization, Children and Noise, Children's Health and the Environment, WHO Training Package for the Health Sector*, www.who.int/ceh

⁵ World Health Organization, *Noise, Data and Statistics*, <http://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics>

⁶ Krogh C *Industrial Wind Energy: Adverse Health Effects and Risks Factors in Children*. Dec 19 2013, Silverdale Hall: St. Ann's, West Lincoln, Ontario

⁷ Grace L. Howell, Debbie Shubat, and Carmen Krogh. 2015. "Autism and the effect of introducing a new noise source into quiet rural communities: risk factor from industrial wind power generation" *The Selected Works of Grace L. Howell* available at: http://works.bepress.com/grace_howell/1

Parliamentary Submissions of Dr. Robert McMurtry to the Australian Senate Select Committee on Industrial Wind Turbines and Health – 29 May 2015¹

Dr. McMurtry presented to the Senate Select Committee under parliamentary privilege. This privilege provides immunity to witnesses from being sued or prosecuted for anything they say in parliament and compels witnesses to give evidence and provide documents without fear of repercussions. This freedom of speech allows parliament to debate and inquire into matters without fear of interference. Below is an excerpt from the Hansard [transcripts] of the proceedings.

Dr. McMurtry made ten Key Points - Point Nine is the rationale for keeping diaries:

“First, adverse health effects have been reported globally in the environs of wind turbines for more than 30 years with the old design and the new [design of wind turbines].

Second, the wind energy industry has denied adverse health effects, preferring to call it ‘annoyance’ even though annoyance, however, is an adverse health effect. Certainly it is a non-trivial effect when sustained because it results in ‘sleep disruption’, ‘stress’ and ‘psychological distress’—those are direct quotes from others’ research.

Third, annoyance is recognised and was treated by the World Health Organization as an adverse health effect, which is a risk factor for serious chronic disease including cardiovascular and cancer.

Fourth, experts retained by the wind energy industry have preferred the diagnosis of nocebo [an ill effect caused by *suggestion* or *belief* something is harmful] to explain the adverse health effects, but the claim does not withstand critical scrutiny as there is a dose-response effect and nocebo does not have a dose-response effect. And there is a clear correlation between exposure and adverse health effects. Researchers have talked about dose-response. I should also comment that making that diagnosis without a comprehensive evaluation of a person or patient would qualify as non-practice, and I know that has been said in this committee before.

Fifth, the regulations surrounding noise exposure are based upon out-of-date standards ETSU-97, which fail to evaluate infrasound and low-frequency noise, preferring instead to use DBA. The issue of ILFN [infrasound low frequency noise] is a problem and it has been confirmed by numerous acousticians including Paul Schomer, a leading international acoustician.

Sixth, the setbacks for wind turbines are highly variable across jurisdictions and here is the key point: *there is no evidence base in human health research for the setbacks. The turbines have gone ahead without an evidence base.*

Seventh, there is an urgent need for human health research to provide evidence based guidelines for noise exposure.

Eighth, the call for third-party research and evaluation has been made by many including in France by the Academy of Medicine of France in 2006 and many times since. As I detailed to you, I made it before government bodies in Canada.

Nine, there is an urgent need to monitor the health effects of people exposed to turbines over time and that has been missing virtually in all jurisdictions.

Tenth, third-party evaluations of the economic and social benefits of wind energy are needed as suggested by the findings of the Auditor-General of Ontario.”

¹ Commonwealth of Australia, Official Committee Hansard, Senate Select Committee on Wind Turbines, Monday, May 29, 2015, Sydney <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;db=COMMITTEES;id=committees%2Fcommsen%2Fb1a80440-3bf3-438c-8a68-471db69711a3%2F0002;query=Id%3A%22committees%2Fcommsen%2Fb1a80440-3bf3-438c-8a68-471db69711a3%2F0000%22> accessed Aug 1st, 2015