

Assistance for Health Affected Residents

Prepared for Municipality of Bluewater Council

March 21, 2015 Council meeting

94 IWTs in the Municipality of Bluewater

by end of 2016



Current number of Industrial Wind Turbines in the Municipality of Bluewater: **54**

Number of Industrial Wind Turbines to come online in Bluewater in 2016: **40**

Total number of Industrial Wind Turbines with an operating capacity of approximately **200 MW** in Bluewater: **94**

NextEra Energy
Varna Wind Incorporated
Bluewater Project
Approved April 2013
37 GE 1.6 MW with a capacity of **60 MW**

NextEra Energy
Goshen Project
Approved July 2014
62 GE 1.6 and 1 1.5 MW Turbines with a capacity of **102 MW**;
17 within Bluewater

Northland Power
Grand Bend Wind Project
Approved December 2014
40 Siemens 3.2 MW turbines with a capacity of **100 MW** operational March 2016

Developer Unknown
1 less than **1 MW** Turbine west of Zurich

Many residents experienced negative health issues soon after the turbines began operating.

Complaints commonly identified by affected citizens:

- Heart palpitations
- Vertigo
- Nausea
- Dizziness
- Visual blurring
- Concentration and Memory problems
- Panic episodes
- Chronic fatigue and loss of energy
- Irritability
- Head and Ear Pressure
- Headaches and Migraines
- Sleep Deprivation

The following slides are five examples of families in Bluewater suffering negative health effects:

Property 1:

We live directly west of turbine # 7 in the project. There are at least 40 other turbines within a 10 km radius.

This is my statement concerning health and other effects I have experienced almost immediately from when the Industrial Wind Turbines started up July 26, 2014.

From then on, all these effects have been experienced on an on-going basis.

The turbines are loud especially on a heavy, wet day.

The sound they make as they cross the wind.

There is also SQUEAKING, creaking, gnarling sounds, like metal upon metal Sometimes sounds like cows screaming in the field. Made formal complaints to NextEra and my municipality. NOTHING DONE.

The biggest complaint I have is sleepiness. I have gone almost 16 month with maybe 2 - 3 hours of sleep nightly. I am sick and as I write this I am leaving my home for a month to get away from the turbines and get some rest. I rented a room in Bayfield but it was not far enough away from the turbines as I have become HYPER-SENSITIVE to the Infra-sound radiation.

I have attached an expert from an article I read.

I believe I am experiencing [vibroacoustic disease](#) from the constant and relentless vibration and infra-sound radiation I have been exposed to over the last 16 months have caused From Frey et al., 2007:

"In coursework description of "Whole Body Vibration" Prof Alan Hedge of Cornell University writes: "Vibrations in the frequency range of 0.5 Hz to 80 Hz have significant effects on the human body.

Individual body members and organs have their own resonant frequencies and do not vibrate as a single mass, with its own natural frequency.

This causes amplification or attenuation of input vibrations by certain parts of the body due to their own resonant frequencies.

According to Alves-Pereira and colleagues (2007), The clinical symptoms of vibroacoustic disease (in people) are:

Stage 1- slight mood swings, indigestion and heartburn, mouth or throat infections and bronchitis.

Stage 2- chest pain, definite mood swings, back pain, fatigue, fungal, viral and parasitic infections, inflammation of the stomach lining, pain and blood in urine, conjunctivitis and allergies.

Stage 3- psychiatric disturbances, small nose bleeds, varicose veins and hemorrhoids, duodenal ulcers, spastic colitis, decrease in visual acuity, headaches, severe joint pain, intense muscular pain and neurological disturbances.

I was rushed to the hospital in July due to a perforation in my bowel. I have never had any problems before. AS is clearly stated in the above study inflammation of the stomach lining is a result of the constant vibration.

Other symptoms I have experienced and continue to experience are as follows:

Ringing in my ears

Vertigo

Dizzy

Pressure in my head

Palpitations

Shaking

Nauseous

Bruising behind my knees

Pressure in my chest

Itchy ears (right from the beginning)

Unknown aches and pains

Jittery

Burning, tingling feels like electricity moving through my legs and arms. This happens almost every night it is very painful.

Sleepless

As I stated 16 months of these symptoms have left me very ill. I have lost almost 30 pounds and it is all muscle mass - not healthy weight loss.

My dog started to seizure January 2015. She usually seizures after a 3-4 day period of easterly winds.

Our well has been disturbed as has our neighbours - NextEra has promised to do "something" nothing has yet been done. We no longer drink our water or give it to the dogs.

I have documented everything right from the beginning. I am more than welcome to allow you to look at my daily entries.

Property 2:

My problems with the wind turbines started with the construction of them surrounding our home. The noise of machinery, cement trucks, graders, etc. They tried to work 24 7 but we (neighbours) managed to stop them from 11 pm to 6 am. Not much relief as the lay down site was near us. It thought that this was the worst! But I soon discovered it was not after a winter and spring of no sleep. The turbines started up and I had almost no sleep, managed a few hours in a couch in the middle of my large living room. We have 5 turbines within 1 km of our home. The headaches, the nausea, I could not even think. I was miserable. I spent most of my days at the Bayfield harbour, Library, homes of friends, anywhere to get relief. We went on a holiday August 2014 and no problems, came home to no sleep, headaches, throwing up, etc. again. We went on two more weeks in September 2014, same thing, no issues again away. Sleep is under rated. When we came home the second time I told my husband I was leaving even if it meant sleeping in the car forever. He was feeling some effects by this time. We drove our 5th wheel trailer to friends and parked there for 10 or so days until we bought a new home (trailer) in a park. I could only go home to the big house for maybe two hours a a time. Try packing a 3,300 square foot home in two hours a day. A nightmare. To leave a home we didn't ever want to leave. I still can't go to this property willingly. Who wants to feel sick? Not I. I want my life back. No one cares about us, only money and greed.

Property 3:

We are three to five km away from the turbines and if the wind is out of the south or south east, east, or north east my vision is so bad, it is like coming into a fog and I can't even drive. When I go away, it mellows out. I return and it gets worse. I know when I can see and I can't.

About three months after the first Project about 5 km north of us came online, I was diagnosed with glaucoma. I had been on a watch for a few years due to a family history so I was getting regular checks. My eyesight continues to deteriorate with my pressures described as 'wildly fluctuating' to the point that I was twice sent for emergency surgery after being tested in Grand Bend and not requiring it once I got to London because the numbers dropped below what was needed to make it an 'emergency'.

The Ivey Eye Clinic Dr.'s are stymied and cannot say where the inflammation comes from however I have been informed by credible sources that infrasound can create inflammation which I was diagnosed with in October. The maximum medications that can be given has now created a cataract, requiring further surgery. My situation has attracted a renowned specialist and I am currently waiting on a hopefully less invasive 'emergency' surgery, scheduled for mid February.

Added to the stress attached to potentially going blind, I have felt the following:

Vibration and a feeling of unrest

Extreme headaches

Jittery

Chest pains

Vertigo (twice while using a chain saw)

Significant weight loss (19 lb)

I have income property bordering the Bluewater Project which my livelihood depends. My tenants have complained about headaches, head pressure, changes in their menstrual cycles and unexplained mental fatigue beginning shortly after the operation of the first Project. I have one tenant who eventually left and advised that they felt an incredible change within a few days of moving. Three tenants have moved out to date.

I also reside on Property 3. Five days after the first project was turned on I began with my first bout of tinnitus. I understood I may have been hyper-vigilant as I had done research and was aware of symptoms some people had but truly didn't expect to feel anything since I lived about 5 km from the closest ones. Initially I had documented all of the things I was experiencing that were new or unusual however I found myself becoming depressed and stopped documenting in the hopes of staving off an episode of clinical depression. Since the turbines came online and more so since the second Project 3 km west of us began, I have experienced tightness in my abdomen, nauseousness, churning sensations I have never felt before in my life, head pressure, headaches, interrupted sleep, lack of concentration, heart palpitations, impaired memory and impaired cognitive ability which has decreased the quality of my life significantly. That combined with needing to drive back and forth to London for medical appointments left me unable to work and what is even more stressful is the ten 3 MW turbines that surround our home and the 14 within 2 km of the income property have yet to start.

Our cat is behaving strangely, now regularly going under the deck, refusing to come out and needing to be physically pulled out. Some nights he refuses to go outside. When indoors, spends 90% of his time in the basement as do we now.

Property 4:

Just over a year ago, the 36 turbine wind farm to my north went into operation. Shortly after I experienced neck tightness and a feeling of pressure in my head. I wasn't really concerned because I thought this was just some work related issue (muscle tension) which would go away soon.

A few months later the 68 turbine wind farm to my east and south-east went into operation with one turbine just 650m from my house. And currently another 40 turbines are under construction to the west.

On top of the now constant pressure in my head I was experiencing ringing in the ears, loss of appetite, dizziness, the feeling of having to throw up in the morning (I'm male and can't be pregnant), a sudden increase in heart rate, muscle cramps and occasionally a blurred vision to the point where, when I was driving, I had to pull over for 10 to 15 minutes until my vision came back to normal. Many nights I'm lying awake for several hours which makes me very tired throughout the day.

I eventually went to see my family doctor which sent me for further examination to check if I was having a brain tumour, nothing was found. For the past 10 months, I have had numerous treatments by massage therapists, chiropractors and acupuncture, nothing helped.

My son started sleeping with a fan running all night and several times he woke up with a nose-bleed.

Our dog will whine all night if it is windy and the turbines are turning.

Property 5:

Elderly man notices increased background sound like a machine left running in his machine shop since BlueWater project was activated.

He developed facial paralysis. This Bell's Palsy has not improved in the 17 months since its onset three weeks after BW Project started up. His dominant eye is affected: aching, watering and with reduced ability to focus. Also extremely sensitive to cold. Mouth and cheek have a leathery quality. Also experiences poor sleep, dizziness, reduced balance, poor short term memory, loss of words, and reports 'inability to think'.

Wife has experienced intrusive tinnitus for the same period of time.

Wider Understanding of Health Issues

The Health Canada Study (Preliminary Report November 2014) reported issues with turbine noise started at 35 dba, meaning the current 40 dba level being used is not sufficient.

The Health Canada Literature Review (March 2015) reported turbines are linked to chronic high annoyance and noise stress effects which is considered an adverse health impact.

The Grey-Bruce Board of Health Study (February 2013) showed wind turbines cause distress among people who live near them. Dr. Hazel Lynn, MOH advised "We cannot pretend this affected minority does not exist".

In Cape Bridgewater, Australia (January 2015), Stephen Cooper's study showed specific wind turbine operations were linked to pulsing sensations felt by nearby residents.

As more IWTs become operational in Bluewater, the number of residents experiencing negative health issues will continue to increase.

The MOECC have guidelines regulating audible noise.

Within those guidelines, the developer must conduct noise testing testing within 18 months of a project's official start date.

The MOECC does not know where testing will be conducted and will not know until after the acoustic report is provided to them.

The 18 month delay, without any interim testing at locations where complaints have been logged, is a significant problem for health affected residents.

The MOECC has zero oversight over the acoustic audit that determines whether or not a project is in compliance.

The MOECC has no regulations for infrasound / low frequency noise.

We understand:

- All wind Projects were approved by the Province and are governed by provincial regulations
- The Municipality has powers under the Municipal Act:
 - health and well-being of residents
 - Noise and vibration
- Direct municipal regulation raises complex legal issues.

We request the Municipality of Bluewater act as our local champion in seeking resolution of our health concerns.

SPECIFIC ACTIONS REQUESTED FROM COUNCIL.....

1. THAT BLUEWATER COUNCIL ADOPT THE FOLLOWING RESOLUTION SUPPORTING THE HURON COUNTY HEALTH UNIT INVESTIGATION INTO HEALTH COMPLAINTS FROM RESIDENTS LIVING NEAR INDUSTRIAL WIND TURBINES.

Whereas:

The Huron County Health Unit announced it will investigate the concerns of residents regarding potential health effects of industrial wind turbines, in keeping with their legislative duty to investigate potential population health hazards; and,

Whereas:

The Huron County Health Unit decision to commence an investigation is due to the numerous health complaints from people living in close proximity to industrial wind turbines in Huron County; and,

Whereas:

The Huron County Health Unit is required to do an investigation when there appears to be a community environmental health issue; and,

Whereas:

The Huron County Health Unit is working with the University of Waterloo and medical experts in Ontario to develop an on-line and paper survey for the investigation; and,

Whereas:

The Huron County Health Unit is the first county health unit in Ontario to conduct such an investigation; and,

Whereas:

The Huron County Health Unit is seeking county wide knowledge of and participation in this investigation by Huron County residents living in close proximity to Industrial Wind Turbines; and,

Therefore, be it resolved that the Council of Bluewater supports the decision of the Acting Medical Officer of Health, Dr. Janice Owen, to conduct an investigation into possible health problems of residents living in close proximity to Industrial Wind Turbines in Huron County.

SPECIFIC ACTIONS REQUESTED FROM COUNCIL.....

2. That Bluewater Council pass the following motion, (similar to Kincardine Council):

The Municipality of Bluewater acknowledges the health-related problems reported by some families who live in proximity to Industrial Wind Turbines;

AND FURTHER that the Municipality confirms its willingness to continue to dialogue with wind developers, the provincial and federal governments, other local governments, health agencies and citizens affected by wind turbines to develop mitigation measures.

3. That Bluewater Council work to develop a user friendly process that will track the health complaints of Bluewater residents.

SPECIFIC ACTIONS REQUESTED FROM COUNCIL.....

4. That Bluewater Council contact Dr. Eric Hoskins at the Ontario Ministry of Health and Long Term Care requesting:

- the Minister to follow up on cases provided to the Board of Health as an indication that Ontario Standards governing wind turbines are not sufficient to protect health.
- the Minister to provide guidelines to physicians for treatment of health issues related to wind turbine noise emissions.
- the Minister report back on results and actions taken.

5. That Bluewater Council contact the Federal Minister of Health Jane Phillipot requesting:

- Field follow up on the cases in the context of the 2014 Health Canada study suggesting Ontario standards were not sufficient to protect residents health.
- Establishment of tougher national setbacks standards for IWT's based on the 'Precautionary Principle' before more turbine projects are developed that place turbines too close to nearby residents
- Request that steps be taken to apply the Radiation Emitting Devices Act to infrasound pressure waves emitted by IWT's.
- The Minister supports the MMWTWG letter dated September 10, 2015.
- A report on actions taken and other recommendations to address those concerns.

And advise they are referring health complaints of it's residents to Health Canada in addition to Dr. Eric Hoskins.

SPECIFIC ACTIONS REQUESTED FROM COUNCIL.....

That Bluewater Council contact both the:

6. Federal Minister of Environment and Climate Change: Catherine McKenna

Request that steps be taken to apply the Radiation Emitting Devices Act to infrasound pressure waves emitted by IWT's.

Request the Minister support the MMWTWG letter dated September 10, 2015

And the

7. Provincial Ministry of Environment and Climate Change: Glen Murray

Request for recommended responses to the situations reported by the municipality.

Request copies of noise analysis taken to confirm that the wind project is operating within the approved specifications.

Request information on the number of complaints that have been filed with the Ministry.

Request for information on steps taken to address health complaints.

Request a report on actions taken and other recommendations to address these concerns.

SPECIFIC ACTIONS REQUESTED FROM COUNCIL.....

That Bluewater Council contact:

8. NextEra Energy Canada Ltd. and request:

- A senior executive from he company come to Bluewater to address the issues raised by residents about the operation of the facility.
- Details on what steps will be taken by the company to deal with resident's health concerns.
- Copies of the noise analysis confirming the Project is compliant with standards on the Bluewater/Varna and Goshen Projects.
- Information on the number of complaints that have been filed with the company and the steps taken to address these complaints.

9. Northland Power Ltd. and request:

- A senior executive from he company come to Bluewater to address the issues raised by residents about the operation of the facility.
- Details on what steps will be taken by the company to deal with resident's health concerns.
- Copies of the noise analysis confirming the Project is compliant with standards on the Grand Bend Wind Project.
- Information on the number of complaints that have been filed with the company and the steps taken to address these complaints.

Specific Actions Required Cont.....

10. That Bluewater Council contact the Huron-Bruce MP and MPP

Request assistance from Ben Lobb, Huron-Bruce MP and Lisa Thompson, Huron-Bruce MPP in resolving issues with the respective government agencies.

11. That Bluewater Council contact the Association of Municipalities of Ontario requesting:

Support from AMO for a coordinated response to the issues faced by many municipalities across the province.

Other Options

If the preceding actions do not produce satisfactory solutions to the issues being identified with the operations of these turbines:

- Investigate options for the municipality to conduct independent testing of noise levels including infrasound / low frequency noise in all affected homes.

Urgent Action Required

- Problems are relatively new however not unique to Bluewater
- Health complaints cannot be ignored
- Health effects become more serious over time. Many families are unable to relocate. There is a need to investigate this environmental health issue now and for the Municipality of Bluewater to act as our local champion in seeking resolution of our health concerns.