Transcript of a Presentation Made to the Huron County Health Board by Jane Wilson, Wind Concerns Ontario, held on August 4, 2016

PRESENTER: Ms. Jane Wilson
--- Upon commencing the audio recording

THE CHAIRPERSON: I will say I was given, as of evening last night, some questions that might just be related to this from a public, so I'll have an opportunity to ask some of those. I think some of those will be reflected on the board as well.

So Jean-Guy.

MR. ALBERT: All right. Thank you, Mr. Chair.

At its last meeting, board members directed staff to invite Jane Wilson to give a presentation on possible opportunities to partner with University of Waterloo to conduct investigation with regards to potential health hazards associated with industrial wind turbines. So this morning I have the pleasure of introducing Jane Wilson, who is the president of Wind Concerns Ontario. Along with Jane is Warren Howard. Warren is also an executive with Wind Concerns Ontario.

Jane had indicated that some folks from University of Waterloo may be joining us, so I'll introduce just in case they come in: Dr. Philip Bigelow, an associate professor with the University of Waterloo, was to join us as well as Dr. Ron Brown, also an associate professor with the University of Waterloo. So if they're not in the audience, they may join us in progress.

So without further adieu, Jane, I'll give it to you.

MS. WILSON: Good morning, and thank you
again for the invitation. It's a pleasure to be here in Huron County.

Just very quickly, Wind Concerns Ontario is a coalition of the energy groups, families, and individuals that are concerned about the effects of industrial-scale wind power on three areas: on the economy, on the natural environment, and on human health. Our group spans the province from Algoma in the north and Lake Superior area to the far east and Nation Township and south southwest, Chatham-Kent, and all points in between.

We are not opposed to renewable sources of power. We do believe, however, that a thorough analysis of all of the impacts of industrial-scale power generation and the need for community support are critical to sustainable development, and we're supported in this by the views of two auditors general, both of whom are concerned about how this program has been rolled out in Ontario.

We've been interested for years in doing research in response to citizen complaints about the effects of wind turbines as they've been sited, and we also felt it was important to involve an institutional partner. So we've been in discussions with University of Waterloo, specifically the School of Public Health and Health Systems.

The university is known for seeking innovation solutions to some of the major health challenges of our time. They work in chronic disease prevention and management, health and aging, healthcare system
integration, management and informatics, food and water safety, security in government, but in our area, they are working also in health and the environment.

I should mention at this point, too, I'm a registered nurse, so health issues are very close to my heart and part of what I do.

The background for research studies in Ontario, in 2010 -- actually the work was done in 2009. The Chief Medical Officer of Health released in 2010 a literature review, and as the conclusion of that report, she said:

"A key data gap in Ontario was actual noise measurement of the environment and around more quiet rural areas and wind turbine projects."

The Health Canada wind turbine noise study, which was released in 2014, actually showed that 16.5 per cent of people who are living at 1 kilometre or less were distressed or annoyed, and "annoyed" in this context is a medical term that denotes distressed. That number jumped, actually, to 25 per cent at the provincial setback of 550 metres.

We've been in contact with Health Canada since. We actually had a meeting with them the day after that report was out, and I have been in correspondence with them ever since. Just, I think, last Friday I got a letter, again, and they agree with us that there are gaps in that study, and so that's one of the things we're looking at is closing those gaps and getting the
information that we need.

The Canadian Council of Academics and
acoustics professionals around the world say that the
A-weighted measurement of noise actually fails to capture
the whole picture of noise that's produced from wind
turbines.

One of the reasons that got us going is
they're not only complaints to us, but, as of December
2014, the Ministry of Environment and Climate Change
revealed to us that they have received over 2,700 noise
complaints. That's to the end of 2014. So as a year and a
half, we're estimating that's probably more in the region
of 3,000 noise complaints to this point.

The need for research, again, is confirmed.
Most studies today are simply reviews of existing
literature. There's been a lot of work done, but these
studies have not caught up with that. Again, studies have
relied on the A-weighted noise measurement, which many
people are confirming is not an adequate picture of what's
going on. No studies in Canada have followed what's called
a purposive sample. What that means is you find people
having problems, and you follow up and investigate those
people and find out what's going on. That means
investigating noise complaints and actually doing noise
measurement. A major flaw in Ontario's Green Energy
Program has been the failure to take seriously these
complaints and to do proper follow-up.

Recently, there was a study done in
Australia. It's called the Cooper Study or the Cape Bridgewater Study. That study changed the language of wind turbine noise research around the world. Instead of talking about noise, Steven Cooper, the acoustician, concluded that the word we should be using is "sensation."

Now, that's our experience too. When we talk to people exposed to this, one of the first things they do is say, "I feel it. I can feel it." So you can see how things are developing in research.

So the Cooper Study was critical. They found that there is a cause and effect relationship between wind turbine power output and people's response. And back in 1985, there was a study done in Toronto. A study of infrasound showed that 12 to 23 per cent of people exposed to infrasound at less than 8 hertz will react with nausea, dizziness, and other symptoms.

In fact, the ISO 1996 says:

"Perception of sound and effects of sound differs considerably at low frequency."

So, again, they're looking at low frequency, which is not something that's not been studied. And, again, the ISO determines that perception of sound may be described as pulsation.

Dr. Paul Schomer, who is the standards director emeritus for the Acoustical Society of America, just gave a presentation a few weeks ago. In that, he said, here's the picture of wind turbine noise emissions:

"Audible sound can result in annoyance or
distress. Infrasound can result in reports of poor health. Both of them result in sleep disruption, which then, as people get tired and exhausted, you can see other health effects. Those effects reported can be the feeling of pulsation, pressure on or in the ear, headache, fatigue, nausea, and dizziness."

These are the effects that are reported around the world, not just in Ontario. Many people have relied on audible noise as being the problem. We know now it's a bigger picture than that. They say, if you can't hear it, it can't hurt you. We know now that's not correct. And, similarly, you don't see X-rays, but they can hurt you. We don't see infrared light, but it can hurt us. We don't hear infrasound, but it can harm us. And the Cooper Study, again, shows this to be true.

So Winds Concerns Ontario, again, we have wanted to do some research for quite a while. Our goal is now to build on that work that was begun by the Cooper Study in Australia, and working with the University of Waterloo, their expertise not only in health, but in health technology and technology.

So Phase I would be collection of the citizen reports, analysis and identification of the participants for follow-up. And here we're proposing to use -- again made in Canada, Dr. Robert McMurtry of the University of Western Ontario and Carmen Krogh developed diagnostic criteria which would be very useful deciding
which subjects would be interesting to study.

Phase II would be actual noise measurements on a minimum of six locations. It would be multiple areas in the homes, outside the homes, so a thorough noise measurement.

And Phase III would be analysis and reporting of those results.

Just to give you a couple of details about the project, because it can get very technical, again, we can use A-weighted measurements for audible noise, measures of audible and low frequency noise, and separate measures of infrasound. The equipment to measure noise will be present, as I said, in various locations inside and outside the dwelling. Sleep disturbance data will be collected simply by using actograph technology. I think everyone is familiar with a Fitbit watch or whatever. This will help people determine how their sleep is being disturbed and when. All this data will be correlated with wind turbine proximity, turbine activity, and weather conditions at the time.

So our request to the Huron County Board of Health today is to consider being a participant in this venture, adventure, one might say. A minimum contribution would be just to allow our research team access to your confidential reports of noise that are being received by the health unit and to allow the staff epidemiologist to be a named investigator in the project. Other levels of participation would be to allow the staff epidemiologist
and public health professionals to participate in the analysis of the results and site selection for Phase II activities. We would also ask that the staff epidemiologist could be a part of the named research team for reporting and publication of results.

Again, this is a new approach because we're following a purposive group of participants. I don't know if you know of Sir Austin Bradford Hill, who is largely regarded as the father of epidemiology. He said:

"When you do studies and you don't find out what you thought you would find, if you don't see a cause and effect, but you still have a group of people who are not well or having some problems, you don't give up. You keep working at it."

That's what's guiding us.

So, again, actual noise measurements will be done, not just computer predicted models, which is what has been done in many other studies. We may use control subjects who could actually be family members in the same location. We aim to keep costs to a minimum, and the funding for this project will be done through grants and donations yet to be determined, but we'll be working hard to get the resources to do that.

So that's my quick summary, and I can answer any questions right now. Warren or I will be happy to answer any questions as well.

THE CHAIRPERSON: I'll look to the board first. Board Member Jewitt?
BOARD MEMBER JEWITT: I have a technical question. Are there any concerns about not having a baseline of what the noise is required for the introduction of the IWTs? I mean, if we're just measuring it now, we're going to get what it is currently, but we don't have any information of what pre-existed.

MS. WILSON: I don't know. I mean --

MR. HOWARD: I mean, what we're planning is a 30-day test period in each home, and in that time, turbines will not be operating. So we will have that baseline without -- so before the turbines, and we're structuring it, the noise collection, and one of the key points is to make sure that the noise, particularly the infrasound we're finding, displays the characteristics of the blade pass frequency that goes off from the turbines so that it is very clearly wind turbine noise that we're studying.

BOARD MEMBER JEWITT: Thank you.

THE CHAIRPERSON: Board Member Steffler?

BOARD MEMBER STEFFLER: Yes. Are you going to be making the same presentation to our Lambton-Middlesex County where there are a lot of wind turbines down there or Durham County where there are a lot up around Grand Valley so we can all share in the costs, not just share in zoning? I think this is an Ontario issue.

MS. WILSON: Mm-hmm.

BOARD MEMBER STEFFLER: This should be brought up at the ROMA convention in Toronto so that it
could be equally funded.

MS. WILSON: We started in Huron County with -- actually Dr. Bigelow, Warren, and I were in a meeting. We were discussing how we get started and where we'd get a population that had already identified problems, and I think Dr. Bigelow said, "Huron County's got a mechanism in place to be collecting complaints. Let's start with them."

"Why not call them?" he said. So we really have just started with you, but that's a good suggestion, to be sharing, but to keep the costs down, we're looking at a limited population right now.

Do you have anything to add to that?

MR. HOWARD: Well, just the costs to the Huron County, I don't think will be that large.

MS. WILSON: Yeah. No. Costs will not be that large. We're assuming the costs for the noise measurement. All the technical things would be done. Those would be phases that are under our --

BOARD MEMBER STEFFLER: I guess the point I'm trying to make: It's not only a Huron County issue.

MS. WILSON: Yes.

BOARD MEMBER STEFFLER: So I think you should be looking outside of Huron County, our friends up in Grey County and Lambton County, Middlesex, all across Ontario.

MS. WILSON: Yes. Some other municipalities are looking at doing their own noise measurement studies, but they're just in the development phase now as well.
THE CHAIRPERSON: Board Member Jewitt.

BOARD MEMBER JEWITT: It might not be to you. It might be more to Jean-Guy. But in the original proposals that we had for the information gathering, how restrictive was our information? Because it's asking us to share -- one of the requests is to share confidential information, and so is that something that we would have to go back and ask the folks that have already allowed the information to be brought forward, that they would feel comfortable having it shared beyond what we have gathered it for?

MR. ALBERT: Through the chair, we haven't gone too much beyond it. I think there's a motion in front of you, or there will be after this presentation. It's a little different than what we had proposed, definitely. The original proposal was for us to collect the data and for us to analyze the data and to see if there was enough there to generate a Phase II. So if the motion passes and we're directed to look into this further, that is something that we would definitely have to consider, sharing the information. That would have to be brought forward to anybody who wants to participate.

THE CHAIRPERSON: Any other comments?

I will make a few comments just because Dr. Bokhout, who is our Acting Medical Officer of Health right now was not available to attend today, so we did sit down, and he wanted me to relay some information on his feelings and thoughts on this to the board.
So, when we did sit down, we both agreed, and I think the board does agree, that a partnership is a key part of looking at this type of -- or analyzing the issue itself and that we do -- he felt with ourselves and with the University of Waterloo, there is an opportunity there. And his biggest feeling was the initial stage is something that can be kind of done in a reasonable amount of not time, I guess, but a reasonable amount of low financial impact, because we kind of started some of that already. We'd have to kind of regenerate that, I guess, finally.

And then we'd want to talk with the University of Waterloo, and, as in the presentation, there was comments about staff time with our epidemiologist and how they would be a part of the team, and that would be a consideration we'd have to look at to find out where the workload lands.

But that was really his feelings on it is the initial first phase is something that could be considered, and it would be a very light impact from a financial perspective. And he thinks there is some interest. And, at the same time, that's where he felt, if we were going to move forward, that's where we would start.

But the big key -- and he was very adamant as well as I agreed with him -- is that there has to be partners at the table, because this is a -- well, as Board Member Steffler mentioned, this is a bigger issue than just Huron County. It's a large issue, and having an academic
asset that is interested in the subject is a valued asset, and if their technology or reading -- I'm not sure if they're providing the sensors or whatever, but we think it's important that we have not just our own epidemiologist, but others outside looking at the information that will be collected itself if it gets to the next step of Phase II. So the partnership, he felt, was extremely important right from Day 1. That's what he relayed to me. Any questions about that?

I do have a few questions here. I will be forwarding them to you, Jane, if that's okay, or I'm not sure if someone has even given you a copy maybe already.

MS. WILSON: Yes.

THE CHAIRPERSON: If you are recording, you're not supposed to be recording.

FEMALE SPEAKER: Oh. I just thought with all the other recording devices.

THE CHAIRPERSON: They asked beforehand.

FEMALE SPEAKER: Oh, sorry.

THE CHAIRPERSON: And I appreciate that, but there was requests made. That's why I mentioned right in the beginning of the meeting that they requested to be recording.

Sorry about that. I got sidetracked because I have Karen behind me.

There were 13 questions that were sent to me last evening, actually -- yeah, 13 questions with some subsection questions. Some of them, I think, would need
some time for you to answer. I'm not sure if that's something that is best or if you'd like me to try to rifle through them.

MS. WILSON: I think my thought when talking to Sandy when she gave them to me was that I could see a lot of those questions actually are later in the process and would probably be better for us to try, if that works for you, and then --

THE CHAIRPERSON: Yes. Okay.

MS. WILSON: And then we'll see if we can get --

THE CHAIRPERSON: Okay. As long as you got a copy, I think that's the most important. And in saying that, there are some very pointed questions, but, at the same time, I think some of them fall back on our board, and I just received these last night, so I think some of these will to come to myself as well.

Any other questions or comments with regards to the presentation of information or of Jean-Guy? Yes.

MALE SPEAKER: You touched on it, but I would like to see -- I mean, based on what the recommendation is it does ask for staff time, so I would like to see an acknowledgement from administration that we have the capacity for staff to bring this into their workload without impacting the jobs that they're currently completing. So, I mean, it's not directly in the recommendation, but I would like to see that.

MR. HOWARD: Sure.
THE CHAIRPERSON: Any other questions or comments? We do have a recommendation, and it sounds like there might be maybe an added to that of Board Member Jewitt. A report would be brought back on the staff asking to move forward. Does that sound fair?

BOARD MEMBER JEWITT: Yes.

THE CHAIRPERSON: So the recommendation that is in front of us is that the Board of Health directs staff to obtain additional information for Wind Concerns Ontario, the University of Waterloo, the representative related to the requests to the health unit to participate in that investigation and further that the findings will be reported to the board members at a later health board meeting and further that a report be brought forward identifying staff in that capacity, staffing capacity.

That's it.

So do I have a mover for that? Board Member Jewitt, Board Member Versteeg. Questions or comments?

BOARD MEMBER STEFFLER: I still have a concern that Middlesex and Lambton and Grey and the other counties should be asked to take part in this. I still have a big concern there because this is -- as I said, this isn't only Huron County wide. I can see it will be a great cost here in staff time and whatnot, travel, and I would like to see at least these other neighbouring counties be involved because I hear it all the time down in Lambton. I hear it in Middlesex, Grey, and Durham, and whatnot. I would like to see this presentation be made to them and get
their health units onside as well.

THE CHAIRPERSON: Board Member Versteeg:

BOARD MEMBER VERSTEEG: Thank you, Chair. I support this motion, and I think Board Member Steffler's concerns are genuine and real, but I think, also, you have to start somewhere, creating somewhere, and I think the capacity to do as large a study as perhaps Board Member Steffler is looking for is maybe looking for a little too much. And I think this look to be like a good starting point, and we'll have a report back before we proceed on what kind of costs and staffing commitment we're looking at specifically. At this point, we don't quite know where that's going to be for us. So I think this motion is probably an appropriate one.

THE CHAIRPERSON: Board Member Steffler?

BOARD MEMBER STEFFLER: Yeah, no. Certainly, Member Versteeg, I will certainly support the motion, but I would like to see it expanded.

THE CHAIRPERSON: Any other board member comments? What I will say, if there are no other comments, is that I think Board Member Versteeg has the right idea. You have to start somewhere, and then you can start asking for other partners to come to the table. I think it's extremely important, like I stressed earlier, that there will be a relationship right off the get-go with an academic institute, and I think that's a strength to even looking at this matter.

Any other questions or comments?
Since we don't have a question, all in favour? And that is carried. Thank you very much.

MS. WILSON: Thank you very much.

THE CHAIRPERSON: I will make a quick acknowledgement. I saw Sarah come in. We did acknowledge that you might be arriving at some point, so we just wanted to let you know that we did talk about your representation at this meeting.

Thanks, Scott. We mentioned you earlier, though. We'll go on to actually program reports, and this is the finance committee.

--- Whereupon the audio recording concludes