

July 6, 2016

TO:

Town of Oakville, Ontario

**Mayor Rob Burton
and
Councillors**

**Ralph Robinson, Sean O'Meara, Ray Chisholm, Cathy Duddeck,
Nicholas Hutchins, Dave Gittings, Roger Lapworth, Allan Elgar,
Marc Grant, Jeff Knoll, Natalia Lishchyna,
and Tom Adams**

FROM:

Larry Will, PE Leaf Blower Information Specialist

RE: Leaf Blower Legislation

Today, I viewed a Town Council meeting video wherein Delegate Elizabeth Kaplan presented an opinion regarding issues surrounding leaf blower use in Oakville. I am not a local resident and as such, I am not a stakeholder in this matter. I am however, a former Vice President of Engineering for Echo Inc., a leading manufacturer of gasoline powered lawn care products, including leaf blowers. Since my retirement, I have been disseminating 'up to date' information about modern leaf blowers throughout the United States and Canada. Over the past 14 years, I have helped more than 130 communities sort fact from fiction, which typically results in a reasonable and effective regulation that reduces leaf blower noise and eliminates complaints.

<http://leafblownoise.com/List%20of%20cities.htm>

The presentation I speak of was given on June 27, 2016, which appears to be a follow up to the introduction of this issue last December. I'm sure by now you have heard all the typical negative comments about leaf blowers, including a great deal of anecdotal allegations with references to supporting documentation. I want to point out that some of this documentation is actually suspect.

For example, I know that Ms. Kaplan has referred to an article by Dr. Mitchell dated October 27, 2010, which deals exclusively with leaf blowers and the sound they generate. Most of his data comes from a paper presented June 8, 2004, in Finland titled Leaf Blower Noise by Teemu Pasanen, Esko Ryttonen and Esko Sorainen of Kuopio Regional Institute of Occupational Health, Acoustics Laboratory. It sounds very credible, doesn't it?

<http://www.acoustics.hut.fi/asf/bnam04/webprosari/papers/o46.pdf>

The problem with this report and consequently Dr. Mitchell's article is that the research is more than twelve years old. The blowers studied were one to seven years old at the time they were tested. From the model numbers given, it is clear that none of the units were designed to be quiet or sound reduced. Clearly this report and therefore Dr. Mitchell's comments do not take into account the multitude of changes that have been incorporated into the modern leaf blower.

One of Dr. Mitchell's conclusions is correct, but for the wrong reason. He rightfully claims that the issue is not necessarily the volume (measured in decibels) of the leaf blower that is irritating, rather it is the sound quality. He based this on his findings that leaf blower sound is comparable in

magnitude to that of other lawn care products, concluding that blowers are irritating because they generate low tones that are within the band of frequencies where the human ear is most sensitive. The truth is, it is not the low tones that are the issue, but rather the high frequency unique to older leaf blowers that is most irritating. Think listening to a baby cry or a siren from an emergency vehicle. These are not low tones. In the case of the leaf blower, that type of sound is generated by the impeller fan having ten blades turning at 6000 rpm. This generates an annoying frequency of 1000 Hz. It is even higher on electric blowers.

Knowing this, it is this frequency that has all but been eliminated by manufacturers of modern leaf blowers. Further, in the case of “quiet” leaf blowers, the overall sound level has been reduced by 75%, down from 77 to 65 dB(A). Note that for every 6 dB(A) reduction in sound, the volume is reduced by 50%. Now I can state this fact, but it means almost nothing to the average person. To truly understand this point, it is important to attend a demonstration of the difference. One must compare the quiet leaf blower to a noisy one. Run an old PB-400E, for example, and then immediately run a PB-760LNT, then back to the noisy one. The difference is dramatic. I like to include an electric blower in the demo to prove that they are as irritating as an untreated blower. Toro makes a few that tend to scream more loudly than even old gasoline powered blowers.

Ms. Kaplan, in her presentation to the Council, sites exhaust pollution, noise and dust as the main issues pointing to the need for controlling blowers.

Do leaf blowers create high levels of exhaust pollution? No! Not since Environment Canada’s emission standards aligned with those of the U.S. Environmental Protection Agency (EPA) for small spark-ignited engines. The Standard requires gasoline powered lawn care products to meet highly restrictive emission levels beginning January 2005 <http://leafblownoise.com/emission%20graph.htm>, which amounts to an 85 to 90 percent reduction in hydrocarbon emissions.

Do they generate greenhouse gasses (CO²)? Sure, but comparing such a small engine to the automobile confirms that a typical car is 230 times worse when measured over a week’s worth of running time per household. Green house gas is developed in direct proportion to the amount of fuel a device burns, gallons vs. ounces in this example.
<http://leafblownoise.com/>

Are they hazardous to your health? Not according to organizations that have conducted official studies on this issue. <http://leafblownoise.com/EMAIL%20RESPONSE-BOH-noise%20resolution.pdf> All that is ever stated by those making this claim are opinions, not facts.

Do they generate dust? Not if used properly. Leaf blowers are not intended to be used on excessively dusty surfaces. They are designed to be used on grass covered lawns and paved or stabilized surfaces. Education is the solution to this issue.
<http://leafblownoise.com/LeafBlowerTraining.pdf>
http://leafblownoise.com/Pointers_Operating_Leaf_Blower_flier.pdf

Are there other communities that have implemented a leaf blower ban? Yes. But in every case, it has been impossible to enforce this ordinance. Anyone that has ever used a leaf blower will never give it up. Palo Alto, CA is one good example. Menlo Park, CA and Arlington, MA rescinded their bans due to their inability to enforce the ordinance or gain

public support. <http://leafblownoise.com/RevisedProposedVote.pdf>. Santa Monica, CA's 20 year old ban has never worked for them.

<http://leafblownoise.com/Santa%20Monica%20Report.pdf>

Will a ban impact every homeowner? Yes! Not being able to use a leaf blower will force people to use tools from the last century, i.e., rakes and brooms. If you have any physical limitation, you will have no way of keeping your property clean, except to hire someone to do the work. Since using outdated tools is eight time slower, you can expect a substantial increase in labor cost.

Videos showing time comparison:

https://youtu.be/O0v8u_ANvgv and <https://youtu.be/Lxr3MMZOy7U>

In some areas, brooms and rakes simply do not work; on rough or textured pavement, bricks, on top of or behind shrubbery, under vehicles or around yard ornaments, to mention just a few.

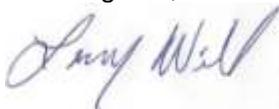
Is the electric leaf blower a viable alternative to the gasoline powered unit? No! Electric blowers have a very limited level of power and performance. Battery operated blowers are also limited in running time. Corded blowers are tied to wall outlets, which limit the distance they can be used from the building. Finally, most are irritating due to a scream coming from the blower impeller.

Is there a viable alternative to Ms. Kaplan's proposal? Yes!

- Allow only quiet gasoline powered leaf blowers, 65 dB(A) per the ANSI Standard. <http://leafblownoise.com/Sound%20label%20mounted.jpg>
- Require professional landscapers that use leaf blowers to be licensed, which in order for them to obtain, will include a one or two hour training program on proper leaf blower use.
- Continue to limit the hours of use to normal business hours for the professional.

Following these three suggestions will solve the issue because professional contractors will have little objection to your regulation and leaf blower noise will cease to be a problem.

Best Regards,



Larry Will
Leaf Blower Information Specialist
ECHO Inc.
479-256-0282

Email: info@leafblownoise.com

Website: <http://leafblownoise.com/>

To learn more about ECHO: <http://www.echo-usa.com/About-ECHO/About-Us>