

December 2, 2019

**TO: Mayor Fred Haynes and
City Council Members,
Saanich, British Columbia, CA**



From: Larry Will

Reference: Proposed Leaf Blower Ban

<https://www.sookenewsmirror.com/news/saanich-resident-calling-for-gas-powered-leaf-blower-ban-finds-support-as-autumn-leaves-fall/>

<https://www.teale.ca/ban-leaf-blowers>

I see that Dr. Teale Phelps Bondaroff has authored a petition to ban gasoline-powered leaf blowers in your city. Much of what is used to justify such a move is based on incorrect information. It is important to understand the facts about leaf blowers before deciding on such a drastic measure as this. I have a few comments about this issue that I would like to share, which I anticipate will be of interest to you.

I am a former [Vice President of Engineering](#) for a leading manufacturer of lawn care products. I am not a stake holder in the above proposed issue, nor am I trying to interfere with any decision you deem necessary for your city, but I am a source of facts that you should consider before making up your mind on this issue. As a leaf blower expert in design, manufacture, and application, I am in a unique position to supply up-to-date and accurate facts. The information I have included in this commentary is based partly on my own personal experience of 26 years within the industry and partly on reputable sources of information to which I provide Internet links.

Of all the possible restrictions one could place on people in your community, addressing leaf blower use will be your most controversial action. The reason is because eliminating this tool will impact a lot of people, residents as well as professionals doing business in your city. Many people want to retain the use of blowers because they save time and they are much easier to use than the alternative. You may not initially hear many opposing arguments to a ban at your council meetings because these people are not as well organized as those asking for a ban, but you will surely hear from them once the ordinance is implemented. To the contractor, the gasoline powered leaf blower is indispensable. In some cases, in the United States, even [law suits](#) have ensued. If you want to know firsthand why a complete ban is such a headache, just contact the enforcement agencies where blower bans already exist. [Palo Alto](#) or [Santa Monica](#), both in California, are good places to start.

I look at it this way. Try asking your housekeeper to keep the house clean without her vacuum cleaner. If you are married to your housekeeper, you may have an even bigger problem if you banish her vacuum.

The actual and primary issue with the leaf blower is its sound level. Clearly many blowers are excessively noisy, and in some cases, they are used inappropriately, early in the morning, later in the evening, even on Sundays and holidays. The solution to the problem of when they are used is an education issue. I can help with that.

But dealing with the sound issue seems to be secondary to the environmental issue in Dr. Phelps Bandaroff's justification. This is because in the United States, anti-leaf blower advocates have learned that sound alone is not a compelling enough reason to ban them. So, following the precedent set in the States, he has taken to citing other reasons for his conviction. The problem is, their claims and therefore his, are unfounded. Sure, they have quotes of all kinds, from all sorts of sources, but these contributors are dubious at best. I will justify this comment a bit later in this letter, but first let me talk about the real leaf blower issue, that being sound.

In dealing with the sound level of the actual leaf blower, things can be done to mitigate sound without banning them. People do not like more rules, especially if the rule costs them money or infringes on their personal lifestyle. Banning the gasoline powered leaf blower, to many, seems like a subjugation to someone else's lifestyle. It's best, therefore, to keep any regulation you decide to impose, very simple, reasonable, fair and as painless to all stakeholders as possible. Also, implementation should be imposed at some later date, perhaps one to three years in the future, to give people time to accept the new rule, adjust to it and amortize the conversion cost. So, here are three suggestions:

1. Require that gasoline powered leaf blowers be limited to 65 dB(A) in residential areas as measured per ANSI Standard B175.2. Enforcement is easier than you might think because testing in the field would not be required. A sound limit label is attached to the housing by the manufacturer.

<https://www.leafblownoise.com/Sound%20label%20mounted.jpg>

In other words, ban the noisy leaf blower, not all gasoline powered leaf blowers.

The industry has created several gasoline-powered leaf blowers that are 75% quieter than the conventional blower, which may not be well known to the average person. Manufacturers of leaf blowers, in response to complaints from the field, have spent millions of dollars to provide a solution to the leaf blower noise problem. It would be prudent to take advantage of this desirable feature.

How quiet is 65 dB(A)? At this level, it will be the quietest power tool on a landscaper's trailer. An actual comparative demonstration would be best, but here is a [video to give you a feel](#). Note that, unlike the popular concept, the electric leaf blower is noisier than the quiet gasoline powered blower.

Now I'd like to talk a bit about the alternatives to gasoline-powered leaf blowers:

The problem with corded or plug in leaf blowers for professionals is obvious; limited power, limited application range due to the cord length and limited service life.

Although the cordless or battery-powered blower may have enough power and performance for the homeowner with a small lot, it is just not there yet for the professional. Also, outfitting a contractor's workers with battery powered blowers is very expensive. One battery, for example, will cost them around \$1000, and that gives him only one hour of use.

Rakes and brooms are too inefficient to even be considered.

I suggest you talk to some lawn care contractors that serve your community in order to find out how such an ordinance will impact them. Increased labor and equipment costs will reflect back directly to his customers and your constituents, whom are not going to like paying more for a lesser quality of work.

2. Develop printed materials for the purpose of educating and informing the private user, as well as the professional, on how to safely and properly use a leaf blower, including acceptable hours of use. It can be made available via your website and through your enforcement agency.

Here are some examples:

https://www.leafblowernoise.com/Pointers_Operating_Leaf_Blower_flier.pdf

<https://www.leafblowernoise.com/LeafBlowerTraining.pdf>

3. Constrain the hours of use further by not allowing gas powered leaf blowers on Sundays and holidays, and not before 8:00 am or after 6:00 pm on days when they are allowed.

Okay, now I want to talk about the environmental impact argument. In the referenced article on the Internet, issue was taken with the impact leaf blowers have on air quality. This is a little hard to understand since Canada's air quality is already pristine and is obviously not impacted by leaf blowers, or even automobiles.

Some like to say that leaf blowers release much higher levels of hydrocarbon emission into the atmosphere than do automobiles. This is truly overstated. For one thing, they are comparing leaf blower engines that have not been treated for exhaust emission, built prior to compliance with the Federal Clean Air Act. Those who use USEPA emission limits, which were adopted by Canada, to justify that leaf blowers are much worse for the environment than automobiles, are just plain wrong. Automobiles **cannot** be compared directly to leaf blowers using published emission limits without first converting to like units.

The Federal EPA measures emissions as "hydrocarbons per mile" for the automobile and "hydrocarbons per horsepower-hour" for small off-road engines. Comparisons must be calculated after taking 'time of use' into account. Convert hydrocarbon emissions from an automobile to "total kilograms per week", for example. To put this in perspective, think in terms of households.

The most common use for a leaf blower is to remove debris from a sidewalk and driveway after mowing the lawn and trimming the hedges once a week (approximately 10 minutes). A week's worth of **automobile driving** for a typical homeowner vs. a week's worth of leaf blower use **is 30 times worse for the environment**. An SUV is 45 times worse. You can easily calculate what happens if two people in the household drive to work separately. To compare automobiles to all handheld lawn care equipment, not just leaf blowers, click the following link:

<https://www.leafblownoise.com/carchart%20comparison.htm>

Regarding the quote from the California Air Resources Board [comparing a Toyota to a leaf blower](#) as stated in the above article, their comment is falsely represented if you take into account the above argument. Furthermore, they are quick to state the model and manufacturing date of the automobile in the comparison, but not that of the leaf blower. Since 2005, hydrocarbon emission has been reduced by [85 to 90%](#), depending on engine size and design concept. It is important to know which type of leaf blower was being compared. Considering the result of their comparison, clearly they are comparing an outdated leaf blower.

Dr. Phelps Bandaroff argues that a test confirms that leaf blower exhaust emission is worse than automobiles. It comes from an old website sponsored by Edmonds.com. The original website has been taken down, but it said that running a leaf blower for one half hour generated as much pollution as a Ford Raptor running from Texas to Alaska, or 3900 miles. On the surface, you must be wondering how this is even possible when a leaf blower (three horsepower) will burn about 10 to 15 ounces of gasoline in a half hour where a Ford Raptor (450 Horsepower) will burn 217 gallons while traveling to Alaska. At 50 miles per hour average, that will take 78 hours. The fact is, Edmonds' remarks cannot be justified because it is impossible to compare these two vastly different engines using the equipment available in their test lab. For a technical explanation as to why, check it out at:

<http://leafblownoise.com/edmonds%20test%20response2.pdf>.

Concerning carbon dioxide gas generated by two stroke engines, which was also mentioned in the article, I'm sure you know that Dr. Phelps Bandaroff is talking about greenhouse gas (CO₂). Aspen Colorado, a non-industrial city, wanted to know what was causing greenhouse gasses in their community. Where is the CO₂ coming from? They found that 555,660 tons of CO₂ were emitted from the transportation sector. That represents 66% of all the greenhouse emissions in Aspen in 2004. The other major contributor is the power generation sector. The data is outdated, but the proportions have changed little over the past 15 years. Lawn care equipment was not even measurable.

https://www.leafblownoise.com/Emissions%20Inv%202004_ExecSumm.pdf

Consider the following:

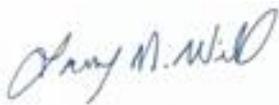
Gasoline is a hydrocarbon, which when completely burned turns into water vapor (H₂O) and Carbon Dioxide (CO₂). Carbon dioxide generation is directly proportional to the amount of fuel burned. How many cars in your household are used to drive to work? How many gallons of gasoline do you burn in a week, one tank full (18 gallons)? How much do you burn in a leaf blower in a week? Most likely not more than 10 ounces. A gallon, by the way, is 128 ounces. The average automobile is 230 times worse than a leaf blower when it comes to the emission of greenhouse gasses. None of the emission controls imposed on the car engine will reduce the amount of CO₂ generated. Computers and catalytic converters minimize the emission of unburned hydrocarbons, not CO₂.

If exhaust emission is truly the issue, it is possible for a local government to impactfully influence that. Saanich can require that leaf blowers meet the lowest applicable level of exhaust emission per the phase-in period allowed by the government. That is determined by date of manufacture, built after January 1, 2005. The label on the unit will tell you when it was manufactured. <https://www.leafblownoise.com/Mounted%20emission%20Label.jpg>

Please give serious consideration to taking advantage of the 65 dB(A) gasoline-powered leaf blower the industry has provided as a solution to the sound issue. If you do, your regulation will be effective, as well as simple, reasonable, and fair to all involved.

At your leisure, please take a half hour or so to go over my [website](#). I know the site is very large, but there is a site-specific search engine to help you find only the topics pertinent to your situation and interest. You will find a wealth of information dealing with the issue of leaf blower sound as well as many other claims made about the blower. If you should need information that is not clearly addressed on my website, please contact me and I will do whatever I can to help, including further research on your behalf.

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>