

October 29, 2019

TO: **Andrew Petty, Director of
Public Health, Marblehead, MA
and
Board of Health Members:**
Michelle B. Gottlieb
Todd Belf-Becker
Helaine R. Jazlett



From: [Larry Will](#)

Reference: Leaf Blower Legislation

<https://marblehead.wickedlocal.com/news/20190910/possible-gas-powered-leaf-blower-ban-in-marblehead-is-back>

Dear Mr. Petty:

I am a former [Vice President of Engineering](#) for a leading manufacturer of lawn care products. I am not a stakeholder in the referenced leaf blower issue, nor am I trying to interfere with any decision you ultimately deem necessary for your city. But I am a source of facts that you should consider before you make up your mind on Ms. Banks proposal. As a leaf blower expert in design, manufacture, and application, I am in a unique position to supply up-to-date and accurate data and 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.

At the invitation of Beth Grader, I see that Ms. Jamie Banks, a professional community organizer, recently presented a unilateral argument for the banning of gasoline powered leaf blowers to you and the board of health. She advocated replacing them with battery powered units. Doing so can be a big headache for your city. The reason is because eliminating this tool will impact a lot of people, voters as well as professionals that want or need blowers. You may not hear many ban opposing arguments unless a concerted effort is made to speak to leaf blower owners and users, which I know is something you are planning to do. These stakeholders are not as well organized or polished as is Ms. Banks and do

not know anything about the leaf blower, except that they work better than any other alternative and that they do not want to lose the right to use them. But your legislators will surely hear from these people once an ordinance is implemented.

For the homeowner with a small yard to care for and with time on their hands, battery power may be a viable option, except for the fact that they will have to scrap their existing blower and invest in a new one. I predict that your greatest opposition to this proposal, however, will be from the landscaping industry for the only alternative to gasoline-powered equipment is electric, primarily battery powered units. For the professional lawn care contractor, battery powered blowers do not have adequate power. Also, replacing their equipment with battery power will come at a very high [cost](#). Because there are many parts of your city that are not sound sensitive, retaining their large blowers is important to them. For where sound is an issue, there are quiet gasoline powered blowers available for this application.

Ms. Banks is clearly the source of the inferred facts being repeated by Ms. Sussman and Ms. Grader. The unfortunate thing is that Ms. Banks is misinformed in her perception of the issues.

Here is an example:

“Sussman noted blowers stir up dirt, dust, fine particles, animal feces, and pesticides that can hang in the air for hours and be inhaled. According to the Environmental Protection Agency, once the particulate matter is inhaled, the particles could affect the heart and lungs and cause serious health effects.”

The EPA does have a statement about “Particulate Matter” saying that it can be hazardous to your health, but dirt, dust, animal feces and pesticides are not technically particulate matter. The EPA states that the only particulate matter that is potentially harmful to someone’s health is known as PM-10 and PM-2.5. These numbers represent the particle size, which is 10 microns and 2.5 microns respectively. A micron is a meter divided by one million. PM-10 is one-seventh the width of a human hair. It is similar in size to the dust you see in a ray of sun light, right within your own living room. For the most part, PM-10 is otherwise invisible. Leaf blowers deal with a much larger sized particle, one that falls back to the earth within a few feet of the nozzle.

PM-10 particles originate from a variety of mobile and stationary sources (diesel trucks, woodstoves, power plants, etc.). Their chemical and physical compositions vary widely. Particulate matter can be directly emitted or can be formed in the atmosphere when gaseous pollutants such as SO₂ and NO_x react to form fine particles. Gasoline-powered leaf blower engines do not produce these two chemicals.

As for leaf blowers raising this particle into the air, PM-10 is already in the air. Because it is so small and lightweight, the wind keeps these particles suspended. The brown haze you see over a city is comprised of these particles. Eventually moisture will bring these particles to the ground, but when that happens, it attaches itself to larger particles and can no longer be put back in suspension as a PM-10 particle.

You can learn more about PM-10 at the following sites:

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

<https://www.epa.gov/sites/production/files/2014-05/documents/huff-particle.pdf>

Another paragraph taken from the referenced article is as follows:

“Sussman also noted emissions from gas powered blowers are also a huge issue. According to one study, a blowers two-stroke engine produces considerably more emissions than a 2011 Ford F-150 pickup truck.”

Anti-leaf blower advocates just love this reference. 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 (3 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. 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, check it out at: <http://leafblownoise.com/edmonds%20test%20response2.pdf>.

Mr. Petty, your approach to this issue is correct. Make sure it is thoroughly researched and vetted. When you talk to cities that have leaf blower bans, be sure to talk to the enforcement agencies and the contractors that use blowers.

With respect to health hazards, here are some websites you can review:

[Are Leaf Blowers Hazardous to your Health](#)

[Greenwich Department of Health Statement](#)

[Report to California State Legislature](#)

[What do Doctors Say](#)

Regarding exhaust emission, here are a few more articles to consider:

[Can Leaf Blowers be legally Regulated Locally to Reduce Emission](#)

[Are Automobiles cleaner](#)

[What About Greenhouse Gas](#)

And finally, the following is a dust study you should see:

[Dust Study and Comparison](#)

The only true issue concerning the gasoline powered leaf blower is sound. 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. There are now several gasoline powered blowers on the market that are quiet, that is, 65 dB(A), measured per an industry standard. How quiet is 65 dB(A)? Here is a [video to give you a feel](#). Note that, unlike the popular perception, the electric leaf blower is noisier than the quiet gasoline powered blower. The industry has improved the sound signature of quiet leaf blowers by 75%, which may not be well known to the average person. Testing in the field would not be required because a sound label is attached to the housing by the manufacturer. <https://www.leafblownoise.com/Sound%20label%20mounted.jpg>

Clearly many blowers are still excessively noisy, and in some cases, they are used inappropriately, early in the morning, later in the evening, even on Sundays and holidays. This is an education issue. I can help with that with some training manuals.

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

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

There are many unsubstantiated supporting arguments, other than noise, pointing to reasons why gasoline powered leaf blowers should be banned. But you should be wary of quotations based on opinion and derogatory innuendo. Some blower ban advocates have impressive titles, but most of these sources have no real understanding of the modern leaf blower's design or its uses. I think it would be a mistake to not give at least the same attention to the other side of the issue, in contrast to the condemnation of the blower. As other issues are brought up, you can find help in understanding the facts at my [website](#).

I know personal opinion from motivated residents is important to a representative government official, but other things should be given equal consideration. What will private individuals in Marblehead think about a ban that requires them to throw away a costly leaf blower? Are elderly people on a fixed income expected to use rakes and brooms? What about those that need them in their jobs? Have you determined how you might enforce a leaf blower ban? Lots of cities have issues with this, [Palo Alto](#) and [Santa Monica](#), just to mention a couple. Give serious thought to ban alternatives. Explore and understand what changes and improvements have been made to the gasoline powered leaf blower. Keep in mind that the issue here is noise, not the blower as such.

"We really need to educate the landscapers and the people using the equipment," Ms. Grader said. "I'm really concerned for their health." I agree, but let's educate them with facts, not with inaccuracies and misconceptions.

I would like to take part in your vetting process. Please contact me if I can help, including my doing research on your behalf.

Best regards,



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