

April 13, 2019

**TO: Mayor Michael S. Rawlings, Dallas, TX  
City Manager T. C. Broadnax  
Assistant City Manager Joey Zapata  
and  
City Council Members**



**From: [Larry Will](#)**

Reference: <https://www.dallasnews.com/news/dallas-city-hall/2019/03/25/dallas-city-council-leaves-door-open-possible-moratorium-gas-leaf-blowers>

Per the referenced article above, it has come to my attention that there is concern about excessive noise in Dallas. Among those devices that are at issue is the gasoline powered leaf blower. Please allow me to comment on the merits of this machine.

I am not a stakeholder in the leaf blower issue in Dallas, but as such that makes me impartial. My purpose is only to provide you with information that will help you and your associates make an informed decision. I am a former Vice President of Engineering for Echo Inc., a leading manufacturer of lawn care products (company information below). Since my retirement, I have been disseminating information about modern as well as outdated leaf blowers throughout the United States and Canada. I have helped more than [180 communities](#) sort fact from fiction, which typically results in a reasonable, effective and enforceable regulation that reduces leaf blower sound to an acceptable level.

The referenced article is not a detailed indictment of the leaf blower, except to say that they are considered noisy and that there is a host of environmental and public health reasons not to have these leaf blowers around. The unfortunate thing is that this paradigm is no longer valid.

For all the arguments you will hear about the leaf blower, the only valid issue is noise. A lot has been done by the industry to the design of leaf blowers, which may not be obvious or 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. With noise becoming an issue in Dallas, you and the City Council really should take advantage of that improvement and require that blowers be limited to 65 dB(A), the quietest design available, and discount the other false claims you will likely hear as the leaf blower issue escalates.

If you have not actually heard the difference between blowers at 77 dB(A) and those at 65, you owe it to yourself to seek out a comparative demonstration. You will be amazed at the difference. These numbers represent a 75% reduction in sound. Quiet leaf blowers are now the quietest gasoline powered lawn care product on the landscaper's trailer. You can get a feel for this from a video I have at my website, but an actual demonstration would be best.

[https://youtu.be/OcH5xbD5J\\_U](https://youtu.be/OcH5xbD5J_U)

Manufacturers apply a sound level label on every unit manufactured for easy identification in the field and at the point of purchase. This eliminates complicated enforcement and sound measuring issues in the field (<http://leafblownoise.com/Sound%20label%20mounted.jpg>). If there is no sound label, the unit most assuredly will not meet a 65 dB(A) requirement.

Another very good approach to the yard maintenance noise issue is to limit when they can be used to reasonable hours during the week and over the weekend. For example, it would be appropriate to limit blower sound by prohibiting their use after 7:00 pm and before 7:00 am. This type of thing perhaps should be applied to all lawn care products, including the lawn mower. Garden tractors and self-propelled lawn mowers are loud and are often mistaken for a leaf blower from a distance, due to the negative paradigm talked about above.

Since quiet gas-powered leaf blowers are readily available, those advocating for a ban argue health and environmental issues as support for banning blowers. So, let me talk about that for a moment.

Several unflattering statements regarding the leaf blower are being made by anti-leaf blower activists. I have run into this many times. Those that dislike the leaf blower will say just about anything to paint it in a dark light. I don't want to criticize these people for how they feel because I know they firmly believe what they say, and I understand their point of view. The problem is, when they talk about exhaust emission, they are talking about very old and seriously outdated blowers. When referring to health issues such as the impact of dust, the facts they quote are not facts at all. In this area, you will only hear personal opinion and derogatory innuendo.

All you need to know about hydrocarbon exhaust pollution from these small engines is that since January 2005, the EPA has required that all new handheld engines meet a stringent emission level, which amounts up to a 90% reduction in unburned hydrocarbons, depending on engine size. If you want to do something about exhaust emission, ban blowers built before this date. See [EPA Exhaust Requirements](#) for phase in levels and the year it was effective.

You can determine the date of manufacture from the emission label.

<http://leafblownoise.com/Mounted%20emission%20Label.jpg>

Some say that leaf blowers release much higher levels of hydrocarbons into the atmosphere than do automobiles. This is truly overstated. Those who use EPA limits 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 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. For example, convert both the leaf blower and the automobile to total kilograms of hydrocarbon emission per week. 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. Most people work in their yard once a week and they use handheld equipment for about 1/2 hour. Of that, about 10 minutes is spent blowing grass clippings. The same household most likely has a car which is driven to work five days a week. A typical number of miles per week is 245 miles.

Using this method, 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>

The bottom line is, except for California, all other States or subdivisions thereof are preempted from controlling hydrocarbon emissions, including through the means of banning. See the [section 209 of the Federal Clean Air Act](#) to read the restriction. A copy of a letter from the Outdoor Power Equipment Institute (OPEI), Alexandria, Virginia, to Solana Beach, California, at the following website explains it more precisely: [OPEI letter to Solana Beach](#)

One unregulated form of exhaust emission that some people complain about is greenhouse gas. I am always amazed when I hear someone try to blame this type of emission on leaf blowers. What we have here is a clear misunderstanding of what greenhouse gas is, and how it is formed.

I'm sure you know that greenhouse gas is carbon dioxide. Aspen, Colorado wanted to know what was generating greenhouse gasses in their community. Where is the CO<sub>2</sub> coming from? They found that 555,660 tons of CO<sub>2</sub> were emitted from the transportation sector in one year. 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 on this scale. [https://www.leafblownoise.com/Emissions%20Inv%202004\\_ExecSumm.pdf](https://www.leafblownoise.com/Emissions%20Inv%202004_ExecSumm.pdf)

By way of an example, consider the following:

Gasoline is a hydrocarbon, which when completely burned turns into water vapor (H<sub>2</sub>O) and Carbon Dioxide (CO<sub>2</sub>). This equation is valid for all types of hydrocarbon combustibles such as coal, oil, wood, grass, leaves and all sorts of materials that are typically incinerated. Carbon dioxide generation is directly proportional to the amount of fuel burned. So, here is another comparison. 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 CO<sub>2</sub> generated. Fuel metering computers and catalytic converters, of the type found on automobiles, minimize the emission of unburned hydrocarbons, not CO<sub>2</sub>.

Finally, you will probably hear that leaf blowers are harmful to your health. There is no supporting documentation for that claim. Here is where justification is based on opinion and derogatory innuendo. According to the EPA, the 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 has a diameter of 0.00001 meter (0.0004 inches or one-seventh the width of a human hair). They are 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 SO<sub>2</sub> and NO<sub>x</sub> react to form fine particles. Gasoline powered leaf blower engines do not produce these chemicals; however, untreated diesel engines do.

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.

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>

The health hazard issue has been reviewed before by the Greenwich Department of Health. The following is a statement taken from a Greenwich Patch article by Patrick Barnard, June 29, 2011.

*The Board of Health, which drafted the town's (Greenwich's) current noise ordinance in 1984 and amended it in 2004 and 2006 to address the use of leaf blowers, has the power to amend it again and present it to the RTM for approval.*

*Baisley said a subcommittee, comprised of three doctors, found that "there's no conclusive, well-grounded scientific data providing medical evidence of the health risks associated specifically with leaf blower use and therefore recommended that no changes be made to the ordinance."*

[Greenwich Statement about Board of Health Findings](#)

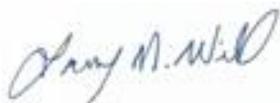
Those asking for a ban do so only because some leaf blowers are noisy and are an irritation to them personally. Little concern is given to what a ban will mean to those affected, nor do they care. Be sure to consider the resistance you will encounter to a leaf blower ban before making your decision. Talk to the people in other cities charged with enforcing a total ban. Check out Santa Monica's problems at: <https://www.leafblownoise.com/Santa%20Monica%20Report.pdf>

Since quiet leaf blowers are readily available, a total ban has no justification and serves only to irritate stakeholders. In the process of evaluating the merit of this type of legislation, please take the time necessary to learn the complications this will present for your constituents, professional contractors and your enforcement agency. Be sure to reach out to those that will be impacted. The best thing is to find a solution to the noise issue that can be supported by all involved before doing anything final. People may grumble because not everyone will get everything they want, but taking this too far, such as impacting one's livelihood, can be a serious problem. Note that the New Jersey Landscape Contractors Association (NJLCA) filed a law suit against the city of Maplewood opposing a leaf blower ban on landscapers.

At your leisure, please take a half hour or so to go over my website. You will find a wealth of information specifically 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,



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