

May 16, 2019

TO: **Mayor Kevin Ruane,  
Sanibel, FL**  
CC: **City council Members**



From: [Larry Will](#)

Reference: <http://santivachronicle.com/Content/Latest-News-/Latest-News/Article/New-Council-Convenes-Leaf-Blowers-Dominate-Discussion/19/18/9076>

<http://www.captivasanibel.com/page/content.detail/id/587088/Two-city-council-members--officers-sworn-in.html?nav=5051>

According to the above articles on the Internet, Sanibel is considering a ban on gasoline powered leaf blowers. It almost sounds to me that the decision has already been made to ban the blower because your staff was directed to research communities that have already regulated leaf blowers, in order to understand the impact of a ban. This is a commendable move but be sure that you are provided with all the facts. Bans are in place in some cities to be sure, but are they enforceable? What is the real cost of a ban to the city? Have contractors been forced to raise their prices? Does the ban work or is it ignored? Has leaf blower noise been reduced?

I ask that you keep an open mind and take the time to understand all the issues stated by those that advocate for a ban. It is important that you not let unsubstantiated presentations, however passionate, cloud the facts regarding the leaf blower and it's use.

I am a former Vice President of Engineering for a leading manufacturer of lawn care products. As a leaf blower expert in design, manufacture, application and use, I am in a unique position to supply up-to-date and accurate data and facts. I have been interviewed for many articles written by several leading news organizations including The Atlantic, New Yorker, Guardian, Miami Herald and

on camera for CBS News Sunday Morning. I was also invited to make a presentation before the National Academy of Engineering in Washington DC, because I am the only nationally known expert totally familiar with the leaf blower issues of sound and environmental impact. I have helped more than [180 communities](#) sort fact from fiction, which typically resulted in a reasonable, effective and enforceable regulation. The information I have included in this commentary is based partly on my own personal experience and partly on reputable sources of information to which I have provided Internet links.

As you know, Barbara Joy Cooley is the force behind this movement to ban leaf blowers in Sanibel. I sent her a [letter](#) back in December of last year pointing out several facts that she seemed to be unaware of, but apparently, she has chosen to ignore my comments.

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. What about those private individuals that use them? What about those that need them in their work? What about all the changes and improvements that have been made to the blower? What about the facts?

Some advocate for the replacement of gasoline powered leaf blowers with electric, both corded and battery powered units. This is like replacing the moving van with a pickup truck. Both will eventually get everything moved to the new location, but one is a lot more efficient and less time consuming. The electric blower, performance wise, is just not there yet.

If the purpose for this proposed substitution is to reduce noise, there is no advantage from a sound standpoint. That's because there are gasoline powered leaf blowers on the market that are [measurably quieter than electric versions](#).

If impacting hydrocarbon exhaust emission is the impetus, I want to point out that this action is illegal per [Section 209 of the Federal Clean Air Act, 1990](#). The control of hydrocarbon exhaust emission from Small Non-Road Spark Ignited

Engines, which includes the leaf blower, is a subset of this Act and is bound by its limitations.

*No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions.*

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](#)

Regardless, let me explain why hydrocarbon emission from a leaf blower should be of no concern to Sanibel. Advocates like to say that 30% of the fuel passes straight through the engine unburned, but this is no longer the case. Hydrocarbon exhaust emission from these small engines has been reduced by 85 to 90%, depending on engine size and overall design. The EPA mandated this requirement as of January 1, 2005, that's 14 years ago. Furthermore, the amount of lubricating oil added to the fuel has been reduced from a 16 to 1, gasoline to oil ratio, to 50 to 1. Add to that the fact that the lubricating oil has been upgraded to a synthetic blend, exhaust pollution is now well within the limits of what is considered acceptable for the environment by the Federal EPA. <https://www.leafblownoise.com/emission%20graph.htm>

One unregulated form of exhaust emission present as part of the combustion process is greenhouse gas or CO<sub>2</sub>. 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.

Gasoline is a hydrocarbon, which when completely burned turns into water vapor (H<sub>2</sub>O) and Carbon Dioxide (CO<sub>2</sub>). In concept, 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 carbon-based fuel burned. [http://earthguide.ucsd.edu/eoc/special\\_topics/teach/sp\\_climate\\_change/p\\_burning\\_gasoline.html](http://earthguide.ucsd.edu/eoc/special_topics/teach/sp_climate_change/p_burning_gasoline.html)

When it comes to greenhouse gas emission, here is an interesting comparison: 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. People

generally work in their yards once a week and they use handheld equipment for about 1/2 hour. Of that, about 10 minutes is spent blowing grass clippings from the driveway and clearing the deck of nature's debris. The same household most likely has a car which is driven to work five days a week, burning about 18 gallons of gasoline if driving stop and go in the city. 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 by turning it into CO<sub>2</sub> and water vapor.

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

The only real issue that can be attributed to the gasoline powered leaf blower is that they are in many cases very noisy. However, 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. Sanibel should take advantage of that improvement and require that blowers be limited to 65 dB(A), measured at 50 feet per the ANSI Standard B175.2, the quietest design available.

Sound is a complex issue and has many things that will influence magnitude. The most influential is the distance from the source one encounters the sound. The farther one is from the sound source, the lower the volume is and thus the less likely one is to be disturbed. Short of that, only silence will be better and that is not a reasonable expectation. There is a complicated formula that describes the condition, which you can learn about at the following sites:

[https://www.leafblownoise.com/Measuring\\_Sound.pdf](https://www.leafblownoise.com/Measuring_Sound.pdf).

<https://www.leafblownoise.com/sound%20power.xlsx>

Clearly there are people that have a dislike for leaf blowers. There has been a measurable number of cities that have regulations in place to control how they are used and what type of designs are allowed. It has been shown that in most cases, city councils find it difficult to implement and enforce a leaf blower ban because is discriminatory, costly to all users (including the city), and impossible to enforce. Doing so will have a very serious impact on the time needed to clear a sidewalk and driveway of debris. Even anti-leaf blower advocates acknowledge this fact. There are alternatives.

People do not like more rules, especially if the rule costs them money or infringes on their personal lifestyle. Banning the leaf blower, to many, will seem like a subjugation to someone else's lifestyle. It's best, therefore, to keep any regulation you decide on very simple, reasonable and as painless as possible.

Also, implementation should be imposed at some later date, perhaps three years in the future, to give people time to adjust. So here are my suggestions:

- Require that leaf blowers be limited to 65 dB(A) in residential areas as measured per ANSI Standard B175.2. 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>
- 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. It can be made available via your website and through your enforcement agency.  
[https://www.leafblownoise.com/Pointers\\_Operating\\_Leaf\\_Blower\\_flier.pdf](https://www.leafblownoise.com/Pointers_Operating_Leaf_Blower_flier.pdf)  
<https://www.leafblownoise.com/LeafBlowerTraining.pdf>

Please take time to review 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,



Larry Will. BSME  
Leaf Blower Information Specialist  
ECHO Inc.  
479-256-0282  
Email: [info@leafblownoise.com](mailto:info@leafblownoise.com)

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