

May 3, 2021

**TO: Mayor Barbara Halliday
Hayward, California**

**Copy: Council Members:
Aisha Wahab
Angela Andrews
Sara Lamnin
Alisa Marquez
Mark Salinas
Francisco Zermeno**

From: [Larry Will](#)



Reference:

<https://patch.com/california/castrovalley/planning-commission-consider-gas-powered-leaf-blower-ban>

<https://www.eastbaytimes.com/2021/04/23/hayward-may-ban-gas-powered-leaf-blowers-at-least-in-some-places/>

Dear Mayor Halliday:

I see from the referenced Internet article that leaf blowers are at issue in Hayward. I know the leaf blower has been a hot button for some people for a long time, but I must say that if you support a blower ban, you are being misled. There is no legitimate reason for banning gasoline-powered leaf blowers, **except for noise**, because everything else you have been told is either false, misrepresented, or unsubstantiated. I know you don't want to believe this because you have heard otherwise for a long time, from people you think know the facts.

Unfortunately, this is not the case. The bottom line is that noise is the problem and there is a way that noise from gasoline-powered leaf blowers can be mitigated, without banning all gasoline-powered blowers. I feel compelled to comment further on this, so you are not blindsided in the future as certain so-called facts you have been given are shown to be false.

I know that in a month or so, the proposed changes to your noise ordinance will come before you for a decision. I have an uncomfortable feeling that it is likely to be adopted because the momentum for this revision is no doubt unstoppable. Limiting the time of use for leaf blowers is likely reasonable and perhaps even appropriate. But the overall goal of eliminating the use of all gasoline blowers because they are noisy is unnecessary. At the very least, it is seriously premature. Battery power has not yet reached the performance of gasoline-powered equipment. When it does, these designs will replace gasoline power on their own merit.

By now, you are wondering who I am to be telling you all this. I am a former Vice President of Engineering for Echo Inc., a leading manufacturer of powered handheld lawn care products. I am not a stakeholder in your community's leaf blower issue, nor am I trying to interfere with any decision you deem necessary. But I am a source of facts about the design and use of cordless and gasoline powered leaf blowers that will be enlightening to you. I would like to start by providing you with a link to my [qualifications and credentials](#).

I do not know all that you have been told, but I can guess. This is because I have heard it all before. Here is something you may not know. There is a group of people, from outside your community, working hard to have gasoline-powered leaf blowers banned throughout the country. The initial reason was, and still is for that matter, primarily because some of them are noisy and therefore irritating. The concept of citing health hazards as the reason for a ban is contrived. It was initiated by Peter and Susan Kendall of Orinda, California, just 20 minutes' drive from Hayward. You can read all about them in the [New Yorker, October 25, 2010 issue](#). Because sound was not a compelling enough reason for banning leaf blowers in their hometown, Ms. Kendall said, "I would (in the future) try to get the law classified not under noise but under health and safety..." So, the Kendall's and many others have searched the Internet for statements and enlisted dignitaries that would support their mission, regardless of the truth. I'm sure you know from your experience with the media that if something is said often enough, by many different people, or put in print by many sources, regardless of the facts, people will tend to believe it as being true. They then will proceed to confidently restate these unproven hypotheses emphatically.

I don't want to overwhelm you here with technical engineering numbers and other details but let me focus for just one minute on one falsehood mentioned in the referenced article. I'd like to talk about carbon emission or the [Greenhouse Gas](#) coming from internal combustion engines as it relates to leaf blowers.

Have you ever given any thought to what happens to fuel (a hydrocarbon) that is burned in an automobile or a leaf blower? It oxidizes. That means oxygen combines with the two elements found in fuel, namely hydrogen and carbon. Every ounce of it turns into an airborne gas. Hydrogen combines with oxygen to form water vapor (H₂O) and carbon oxidizes to form carbon dioxide (CO₂), greenhouse gas.

Those arguing that leaf blowers are bad for the environment because of greenhouse gas (CO₂), do not know how it is created. It's all a function of how much fuel is burned. In your car, 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, 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. Fancy catalytic converters and computers do not limit the formation of CO₂, in fact, these devices increase it by converting unburned hydrocarbons into water vapor and CO₂. Every hydrocarbon burned turns into CO₂. Check it out. [Aspen, CO Greenhouse Gas Sources](#)

To say that leaf blowers are a serious source of greenhouse gas is an uninformed statement. Ten ounces of fuel through a leaf blower generates about the same amount of CO₂ as that found in a [couple cases of beer](#).

Okay, enough engineering talk. Let me take a different approach in addressing this issue of exhaust emission.

If the person citing engine exhaust as an issue is confusing greenhouse gas with hydrocarbon emission, the argument is still invalid. The first thing to understand is that only the California Air Resources Board (CARB) in California has the authority to regulate hydrocarbon exhaust emissions from small engines. The State of California has its own Emission Standard, but it has been submitted to and approved by the EPA as a replacement to the Federal Standard. Note this fact. [All other States or subdivisions](#) thereof are preempted from controlling emissions, including through the means of banning. See the [section 209 of the Federal Clean Air Act](#) to read the restriction. The EPA and CARB mandated that hydrocarbon exhaust emission from small handheld engines must be reduced by as much as 90%, effective January 1, 2005.

A good approach to legally reducing exhaust pollution is to require that all leaf blowers used be manufactured after January 1, 2005. A required label on the engine will tell you if it complies. Click to see the typical [emission label](#) attached to the unit.

I know you want to do something about the leaf blower to please those that want them banned. But you have to consider the impact this will have on those that use them. For the professional user, this can be a game changer.

The people trying to convince you that leaf blowers are bad, are well meaning, conscientious, and dedicated to improving the environment, but they are not professionals. What I mean by not being professional is that none of them are in any way professionally involved in the use, development, or accreditation of the leaf blower. As a result, they really do not understand the value of this tool to those that use them. These people can only quote claims made by others. They have no way of knowing if what they are restating is true. Have they cited qualified tests as justification, or is what they say simply inuendo or opinion? Some of the background material they show is true in concept, but it is not true as it relates to the leaf blower.

Once again, the underlying issue, and the only issue with the gasoline powered leaf blower, is [noise](#). The industry learned of this more than 20 years ago and deliberately addressed this issue in response to complaints. Much has been done to reduce the noise from gasoline

powered leaf blowers, spending millions of dollars to make an alternative to noisy blowers available to the consumer.

To understand how sound reduction is quantified, note that for every six dB(A) reduction in sound magnitude (from any starting point on the measurement scale), the actual volume, or sound pressure, is reduced by 50%.

This much sound reduction is hard to accept as being true for the average person because we cannot comprehend from experience what a 50% reduction sounds like. The best thing to do is to witness an actual leaf blower sound comparison, but I know that it is not easy to arrange this. An alternative is to check out the [video](#) of an actual demonstration developed for the comparison of leaf blowers on my website.

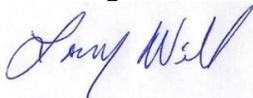
In the case of a gasoline powered leaf blower, sound level is measured at 50 feet to replicate what a bystander will experience. The published values are obtained per the industry Standard ([ANSI B175.2](#)). A "Quiet" leaf blower is 65 dB(A) or less, measured per this Standard. This is at least a seventy-five percent reduction in sound or 12 dB(A), from a typical noisy leaf blower at 77 dB(A). Quiet leaf blowers are only 85 dB(A) at the ear of the operator. Hearing protection is not required according to OSHA.

Quiet leaf blowers have been available for a long time, however, not all leaf blowers are quiet. Therefore, I encourage you to learn more about these quiet blowers before summarily banning them along with the noisy ones.

Fortunately, because of the industry's foresight, any city that wants to limit the sound emanating from a gas-powered leaf blower can easily determine sound magnitude in the field without testing. The consumer can also determine compliance with local sound limitations at the point of purchase via the attached [label](#). This decal has been on all gasoline powered leaf blowers manufactured in the United States for at least the past fifteen years. If there is no label on a unit, it does not comply.

The leaf blower issue can become quite complex. It is my experience that most of the time, people not interested in engineering or technical matters as I am, are not so inclined to understand details presented by an engineer. I know engineering stories can be quite boring to some. If you are being told about other negative traits attributed to the blower, ask a friend, or better yet, ask the city's engineer to read the [appendix](#) to this letter and have him tell you if what I am providing has merit. Knowing the facts will help you arrive at the best decision in this matter.

Best Regards,



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Click: [APPENDIX](#) for details and [links](#) to references