

October 5, 2020

**TO: Mayor Libby Schaaf
Oakland, California**

**Copy: Council President Rebecca Kaplan
Councilmember Dan Kalb
Councilmember Nikki Fortunato Bas
Councilmember Lynette Gibson McElhaney
Councilmember Sheng Thao
Councilmember Loren Taylor
Councilmember Noel Gallo
Councilmember Larry Reid**

From: [Larry Will](#)



Reference:

https://www.reddit.com/r/oakland/comments/j28dxg/subject_legislative_report_for_the_ordinance/

<https://cao-94612.s3.amazonaws.com/documents/Gas-powered-Leaf-Blower-Ban-Ordinance.pdf> n

I see that Councilmember Kalb would like to ban gasoline powered yard care products in Oakland. In the proposed ordinance, there are several “recitals” that are convincingly negative about potential environmental hazards, but most of these have not proven yard care equipment to be a major source. Where the contention cites

two stroke engines as a contributor through comparisons, like the automobile, time of service has not been included in the calculation. I disagree with the justification for a total ban and suggest that there are alternatives to be considered.

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 yard care product 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 yard care products that will be helpful to you. I would like to start by providing you with my [qualifications and credentials](#).

From this point forward, I'd like to focus on the gasoline-powered leaf blower because this is where most of the data comes from, but except for sound reduction, the principles discussed apply to all two-stroke yard care products. You may not know this, but there is a group of people, from outside your community, working hard to have gasoline-powered leaf blowers banned throughout the country. The concept of citing health hazards as the reason for a ban was initiated by Peter and Susan Kendall of Orinda California. 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, 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.

The people that are trying to convince you that two stroke engines 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 gasoline-powered yard care products. I venture to say that they themselves have likely never even used these products personally and therefore have no concept of how valuable they are to homeowners and professional users. As you can tell from the draft ordinance, it is likely that the quoted information from other people and biased sources, as it relates to small engines, is not based on facts or qualified tests, rather these inferences are based on innuendo and opinion. The background material presented may be true in concept, but the contribution to each is not significant as it relates to low powered yard care products.

Take carbon monoxide (CO) for instance. This exhaust component is directly proportional to the amount of fuel burned and that in turn is dependent on the size of the engine and how long it is run. Even logic will tell you that trucks and

automobiles, running for miles every day, driving to work for a week or while one is using a vehicle while at work, will develop more CO than a leaf blower over the same amount of time. The same is true of [greenhouse gas, carbon dioxide](#) (CO₂). Every drop of fuel, when completely burned, must turn into CO₂, with only a small amount becoming CO due to the lack of oxygen in the combustion chamber. Leaf blowers are used for only a few minutes per week for a given household, except during the leaf season in the fall, while cars and trucks are run for hours per week per household, all year round. Leaf blowers burn 10 to 12 ounces of fuel per week per household, while cars burn several gallons. Bottom line, more fuel burned means more CO₂. Aspen, Colorado did a [study](#) to find the major sources of CO₂ and lawn care products were not even on the scale.

Nitrous oxides (NO_x) are not present in any appreciable amount in exhaust from gasoline powered engines. That's because it takes excess nitrogen and oxygen in the combustion cycle of the fuel to generate NO_x. The nitrogen component is not present in the fuel, rather it is in the general atmosphere, [78% to be exact](#). Only diesel engines generate NO_x because they do run on excess air. As in the case of CO₂, the larger the engine and the longer it is run, the greater the pollution.

According to the EPA, the particulate matter that is potentially harmful to someone's health is known as PM10 and PM2.5. Nitrous oxides are the source of [particulate matter](#). Since leaf blowers cannot generate PM10 and PM2.5, there is no justification for banning them for this reason. As for their ability to lift PM particles from the ground and suspend them indefinitely, that is not possible. PM10 and PM2.5 particles are already in the air. Because they are so small and lightweight, the wind keeps these particles suspended. The brown haze you see over a city is comprised of these particles. Should it settle to the ground, it will immediately attach itself to a larger particle which when disturbed by a leaf blower, will return to the ground within a few feet of being raised. You can see from the above "Particulate Matter" link, even PM2.5 is not a viable argument for banning the leaf blower.

I see that the Coronavirus is now an issue for the leaf blower. It is impossible to say this with any correlation to reality. The best doctors in the land would not be able to substantiate this.

Thirty years ago, hydrocarbons, or unburned fuel in the exhaust, were identified to be the source of environmental pollution. It caused smog, sometimes called "ozone". Admittedly, automobile manufacturers have done a lot over the years to reduce this constituent in exhaust gasses. But the leaf blower engine has also been improved. Mandated by the EPA and CARB, hydrocarbon emission has been reduced by as much as 90%, effective January 2005. See "[Certified Emission Levels](#)". Oakland can mandate cleaner engines by disallowing blowers built prior to 2005. See [emission label](#) for manufacturing date.

Two-stroke engines may be somewhat dirtier than the automobile, ounce per ounce of fuel burned, but they are not as dirty as you have been led to believe. When you consider emission improvements and the amount of time per week a blower is used compared to an automobile, [gasoline-powered motor vehicles are 30 to 45 times worse](#). Time of use must be a consideration in this comparison. Some like to cite the Edmonds.com comparison as justification. The [Edmonds comparison](#) has been shown to be invalid, considering the equipment they used to conduct the test.

Almost everything that was presented in the ordinance can be exposed as a falsehood if attributed to two-stroke engines, if you take the time to read the articles at the following links:

[Are automobiles cleaner?](#)

[What about global warming?](#)

[Are leaf blowers hazardous to your health?](#)

[Greenwich Department of Health](#)

[Dr. Steel's Report to California Legislature](#)

[Excessive Dust](#)

[Dust study and comparison.](#)

[What do Doctors say?](#)

[Education](#)

[Will a ban work?](#)

[Leaf Blower vs. Broom](#)

[Noise](#) has long been associated with the leaf blower, but there is a way this noise can be mitigated in Oakland. The industry deliberately addressed this issue in response to complaints 20 years ago. Millions of dollars have been spent designing, testing and revising their manufacturing assembly lines, in order to reduce the noise from gasoline powered leaf blowers.

In the case of the leaf blower, sound level is measured at 50 feet per the industry Standard ([ANSI B175.2](#)). A "Quiet" leaf blower is 65 dB(A) or less, measured per the above 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).

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.

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.

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 and if a ban is in order, ban only the noisy ones.

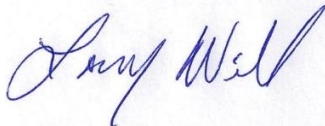
One potential obstacle could be enforcement. Police officers, in most cases, are reluctant to cite homeowners and working people with leaf blower violations. Not when their primary job is to prevent acts of violence and ardently protect citizens and their property. Lots of cities have problems with enforcement; Palo Alto, Santa Monica, and Los Angeles just to mention a few.

Just so you know, in some cities, banning gasoline-powered leaf blowers has been very controversial. Lawn care contractors have taken at least one city to [court](#) over a ban. The reason is because it significantly impacts their livelihood.

People generally do not like more rules, especially if the rule costs them money or infringes on their personal lifestyle. Banning the leaf blower, to many, seems like a subjugation to someone else's lifestyle and ultimately is not well received.

If you should want more technical information about leaf blowers that is not clearly addressed here or on my website, please contact me and I will do whatever I can to help, at no cost to you, including further research on your behalf.

Best regards,



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