

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Kenneth Frederick](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Atherton propose leaf blowing ordinance  
**Date:** Wednesday, November 18, 2020 6:24:31 PM

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**From:** Kenneth Frederick [REDACTED]  
**Sent:** Wednesday, November 18, 2020 6:06 PM  
**To:** Stephanie Bertollo-Davis <[SBertollo-Davis@ci.atherton.ca.us](mailto:SBertollo-Davis@ci.atherton.ca.us)>  
**Subject:** Atherton propose leaf blowing ordinance

Stephanie:

Please note that it isn't clear that the majority of Atherton residents support this plan. We did not elect the Town Leaders to be a local "EPA" and control more aspects of our lives. Several thoughts:

1. There are gardeners (& residents) that may find the cost of replacing the current leaf blowers to be excessive
  - Some of the small gardeners are already barely getting by & may have to go elsewhere
- 2) What are the cost & performance trade offs?
  - Is there a list of possible replacements & details on costs & performance
  - How would a service provider re-charge the blower after it loses power?
  - There are a lot of questions that should be answered and provided to the residents

before any action

3) Perhaps the Town should decide to switch (after research on cost & performance) for the Public areas & use them for a period (1 year?) before taking any steps to force residents to change.

Thanks,

Ken

Kenneth C. Frederick

[REDACTED]  
[REDACTED]  
Lindenwood

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Elizabeth Abramson](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf Blower Ordinance  
**Date:** Wednesday, November 18, 2020 11:04:02 AM

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**From:** Elizabeth Abramson [REDACTED]  
**Sent:** Wednesday, November 18, 2020 10:53 AM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Subject:** Leaf Blower Ordinance

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Hi Stephanie,

I am interested to learn more about the proposed leaf blower Ordinance, but I'm having trouble finding the staff report and draft Ordinance online. Would you mind emailing me a copy?

I am strongly in favor of a more restrictive ordinance, I feel that electric or battery powered blowers would be a better choice than gas blowers, and where possible, I would support eliminating blowers altogether.

I look forward to hearing how others feel about it at the meeting tonight.

Thank you,

Lisa Abramson

[REDACTED]  
Atherton

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Katie Stivers](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf blower at Menlo Atherton  
**Date:** Wednesday, November 18, 2020 6:44:41 AM

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**From:** Katie Stivers [REDACTED]  
**Sent:** Tuesday, November 17, 2020 8:31 PM

**To:** Stephanie Bertollo-Davis <[SBertollo-Davis@ci.atherton.ca.us](mailto:SBertollo-Davis@ci.atherton.ca.us)>  
**Subject:** Leaf blower at Menlo Atherton

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Please accept the ordinance as outlined.

My specific concern is that the leaf blowing at Menlo Atherton High School starts every Monday morning around 7am (not 8am as they should) up 90 minutes. It also sounds like there are two going at the same time but can't confirm this.

Thank you,

Katie Stivers

[REDACTED]  
Menlo Park, CA  
(My house backs up to Ringwood and the Menlo Atherton parking lot.)

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Nancy LERNER](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Proposed new "Leaf-Blower Ordinance" for Atherton Gardeners  
**Date:** Tuesday, November 17, 2020 5:03:05 PM

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**From:** Nancy LERNER [REDACTED]  
**Sent:** Tuesday, November 17, 2020 4:34:41 PM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Subject:** Proposed new "Leaf-Blower Ordinance" for Atherton Gardeners

**[The e-mail below is from an external source. Please do not open attachments or click**

**links from an unknown or suspicious origin.]**

Hi Stephanie:

I'd like to chime in with a brief comment about the newly proposed "Leaf-Blower Ordinance" for gardeners in Atherton which will be presented and discussed by the City Council at their meeting on Wednesday evening. While understanding the necessity and practicality of Leaf Blowers, I strongly agree with the idea that these intrusive contraptions should be regulated to subdue their considerable noise and pollution. It is high time that a wonderful, otherwise peaceful community like Atherton is moving to follow some of our neighbor cities that already require gardeners to use electric rather than gas-powered Leaf-Blowers. I do hope that the ordinance being considered for implementation here in Atherton already includes this important requirement. Please pass my suggestion on to the council.

That's my two cents worth.

Best regards,  
Nancy Lerner

[REDACTED]

**From:** [Jon Windham](#)  
**To:** [Council](#)  
**Subject:** Strong disagreement with draft leaf blower ordinance  
**Date:** Tuesday, November 17, 2020 3:04:45 PM  
**Attachments:** [Letter to town council re gas-powered gardening equipment -- 6-1-2020.doc](#)

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**[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]**

Dear Council members,

I am writing to strongly oppose the draft leaf blower ordinance, and to request that Atherton prohibit the use of gas powered leaf blowers.

With regard to the memo on this issue submitted by Stephanie Davis:

- Why was input from me and other Atherton residents on this subject not discussed in this memo? (My June 1, 2020 letter to the council on this subject is attached for reference.) Why was the only input referenced in the memo from the Circus Club and private schools? Our recent election is a reminder that residents should have the key role in deciding town policies, not private clubs and schools.

- The arguments in this memo in favor of keeping gas powered leaf blowers primarily relate to the incremental cost of alternatives. In the face of the adverse health, environmental and quality of life issues associated with these blowers, I find cost arguments -- especially in Atherton -- to be at best bad judgment and at worst shameful. If Palo, Los Altos, Los Gatos, and 17 other California cities (almost none of which have Atherton's economic resources) can afford to ban gas powered leaf blowers, why can't Atherton?

- Although cost is the primary factor cited in support of the recommended ordinance, the memo cites no cost data, only hearsay. If electric and battery operated leaf blowers are cost prohibitive, why does Home Depot have such a broad selection of them? Certainly somebody is buying them. Before making a decision to accept this recommendation, Council should demand to see the data. How much do high powered electric blowers cost? What's the trend in battery cost over time? How have gardeners in Palo Alto and Los Altos adjusted?

Respectfully,

Jon Windham  


# Jon Windham

June 1, 2020

Atherton City Council  
150 Watkins Avenue  
Atherton, CA 94027

Regarding: Prohibiting the Use of Gas-Powered Gardening Equipment

Dear Council Members,

I'm writing to encourage continued funding to study prohibiting gas-powered leaf blowers in Atherton, and expanding the study to cover the prohibition of all gas-powered gardening equipment (with the likely exception of chain saws).

It's quite likely that no other action the City Council could take would improve the quality of life in Atherton as much ending the use of gas-powered gardening equipment. This equipment is excessively loud and a major source of air pollution. Moreover, it is unnecessary given the abundant availability of electric alternatives.

Given that Portola Valley (with its large, hilly lots), Los Altos, Palo Alto and Los Gatos have already banned gas powered leaf blowers, it seems surprising that money needs to be budgeted to study this issue. However, expanding the study to include all other gas-powered gardening equipment would perhaps justify the study and associated budget.

You are likely already aware of the high levels of air pollution caused by gas-powered gardening equipment; it is extensive and should be considered unacceptable in an affluent city such as Atherton when alternatives are readily available. Less well known is the research demonstrating the adverse health effects of excessive noise in our environment. As reported last year:

Modern sound-related health threats extend far beyond music, and they affect more than hearing. Studies have shown that people who live or work in loud environments are particularly susceptible to many alarming problems, including heart disease, high blood pressure, low birth weight,

and all the physical, cognitive, and emotional issues that arise from being too distracted to focus on complex tasks and from never getting enough sleep. (*Is Noise Pollution the Next Big Public-Health Crisis?* The New Yorker magazine, May 13, 2019)

While the noise-related health impact of gas-powered gardening equipment primarily affects the gardeners who use it hours each day, it is also an irritation for residents who have their peace and quiet disrupted multiple times each week.

Thanks for your attention to this health, environmental and quality-of-life issue.

Best regards,

Jon Windham

## **Proposed Leaf-Blower Ban: Table It**

The proposed ban on leaf blowers is without adequate analysis and is based on a number of errant ideas that do not consider the larger context. This item should be deferred for several years until technology develops that offers a suitable alternative. The alternatives offered are unsatisfactory.

To be sure, leaf blowers of all kinds produce some noise and produce emissions. So do numerous other activities. One must balance the good with the tradeoffs.

**Noise:** The noise issue is not a significant factor in Atherton for the reasons below.

- **Throttle Range Varies in Practice:** The range of decibels in the report appear to be those recorded at the machines when operated at maximum power rather than when the machines are throttled down as is often the case when blowing around plants and to gather leaves. It is wrong to assume all use is at maximum throttle because that is not normal use. Further, the blowers are used only briefly during normal landscaping maintenance, clearing leaves from roofs and gutters, and other common tasks.
- **Inverse-Square Law:** In the air over an unimpeded surface, such as water, mountain top, or hardscape, sound pressure (amplitude) and sound intensity each drop with greater distance as the spherical wave front radiating is inversely proportional, i.e., decreases by a ratio of  $\frac{1}{2}$  as the distance is doubled. This does not equal the decibel level, but that diminishes as well over distance. The size of typical Atherton lots and the setbacks diminish excessive noise.
- **Environmental Muffling:** Sound is diffused and muffled when it encounters objects in its path, such as trees, bushes, fences, walls, and the like. Heavily wooded and landscaped areas, which are an Atherton feature, absorb considerable sound. Further, use behind fences and walls does not travel as if it were over an open area.

The foregoing factors indicate that, in general, the noise is not objectionable in the context of our Town's neighborhoods. I have never had to stop a conversation in my yard because of the ambient noise of a neighbor's use of leaf blowers. In contrast, there are really loud and objectionable noises from distant sources that stop conversation: (i) trains' diesel engines and horns; (ii) civil and commercial plane aviation to and from San Carlos Airport; (iii) helicopters; and (iv) police and emergency vehicle sirens. The last of these is necessary, while the others can be and should be controlled. Put the Town's energies to that end.

**Emissions:** The emissions from any combustion power equipment are brief, an unwanted tradeoff, but needed. They must be viewed in the larger perspective of fully weighted costs and alternatives. The more powerful the MPH of the wind force, the shorter the needed use. Electric leaf blowers are relatively anemic, taking multiples as long to accomplish a lesser job. I know, as the owner and user of both. Plus one must consider the costs to produce the electricity. If corded blowers, one must factor in that electricity from PG&E is largely not from clean sources but includes burning fossil fuels (gas and coal) and nuclear power. If battery-operated, there are the need for multiple batteries, recharging, and battery recycling. Each of these have

environmental tradeoffs that belong in any analysis. They are absent here. The technology and innovations are simply not there yet to offer an attractive and competitive alternative.

**Perspective:** How do you compare other machines in setting priorities? The civil and commercial aviation flying overhead to and from San Carlos Airport spew voluminous unmitigated exhaust that is uncontrolled. Motorcycles and diesel engines spew all sorts of really nasty exhaust that are proven health hazards. Does the Town outlaw them? What about the energy demands of the Town's households? Hair dryers, spas, pool pumps, saunas, washers, dryers, dishwashers, furnaces, air conditioners, refrigerators, freezers, vacuum cleaners, ranges, ovens, automobiles, lighting, alarm systems, air travel, and everything else that leaves a carbon footprint? They all have an impact. Is there an analysis of which contribute the most harm? Is the Town going to take action? There is no justification provided for leaf blowers being banned before any of the above.

**Comparative Jurisdictions in the Report are Not Comparative:** The chart of jurisdictions that limit or ban leaf blowers is patently deficient because (i) it does not focus on similar size lots as those of the Town of Atherton and (ii) the Town's promotion of heavy forest and intense landscaping. Many of the communities have the proverbial postage-stamp lots and/or are landscaped in a natural style where the duff of trees and shrubs is left to accumulate (albeit, that may change in California as fire-dangers seems to increase every year}. Seriously, have you been to Manhattan Beach?

### **Options:**

- Ban trees and shrubs. Encourage complete hardscape.
- Pass the ordinance without adequate analysis and deliberation.
- Table the ordinance until practical alternatives are readily available **[Recommended]**

November 14, 2020

To: Atherton City Council Members DeGolia, Lempres, Lewis, Widner and Wiest

From: Carol Flaherty, resident at 10 Camino Por Los Arboles

Re: Nov. 18<sup>th</sup> City Council Consideration of Amendment to Municipal Code Chapter 8.16  
"Noise", Pertaining to Leaf Blowers

Dear Council Members:

First, let me express my heartfelt gratitude to each of you for your willingness to spend countless hours studying and addressing the myriad of issues that confront our town. Few residents, including myself, are willing to give of themselves as generously as you. It is a huge commitment on your part and one for which every resident should be deeply appreciative.

My husband, John, and I have been residents of Atherton for 35 years. We currently own two properties in West Atherton. Rarely, does a local issue get our attention, probably because the town is so well run and has maintained a very flexible relationship with its residents. I note, however, that the Nov. 18<sup>th</sup> Council Meeting agenda includes an item that should be of interest to every household in Atherton because of its potential impact on each. That issue is the so-called banning of leaf blowers. It seems that every few years, the City Council is asked to take up one environmental issue or another: leaf blowers or gas in homes, etc. There's nothing wrong with this as long as a comprehensive analysis is conducted and thoughtful consideration of the impact occurs. In this case, I believe the analysis is flawed and the impact has not been fully assessed.

I should start by saying that John and I are totally opposed to banning leaf blowers altogether or to mandating a switch to electric blowers versus gas-powered ones. I have a hard time believing that Atherton residents would tolerate a total ban, although they might support a conversion to electric. If the latter were the case, the residents would likely be ignorant of what this would entail. It would be hugely impactful to our landscapers. I should also note that John and I are among the few Atherton residents who actually take care of their own yard. We do so for the exercise benefit. We have a gas mower and blower and an electric edger, hedge clipper, and tree pruner. The electric tools have significant power limitations, as the staff report mentions. On average, we get 20-25 minutes of use out of the edger and clipper batteries before they have to be recharged. I need 2-3 batteries each time we do yard work. We are continuously charging 4 batteries in our garage. If we're charging four batteries, how many batteries do you think professional landscapers will need: a LOT more.

Most Athertonians have one acre parcels that are covered with mature shrubs and trees, ourselves included. The volume of debris that would amass from a total blower ban is significant, and I hardly think residents --- or our landscapers --- are going to spend the hours and hours it would take to rake our parcels and they would still look awful without blowing. Candidly, we saw the impact of reduced

landscaping last April when Atherton landscapers were banned altogether due to Covid. After a few weeks, the town looked pretty “scraggly”. And, a little later, more-and-more residents simply ignored the ban and brought their landscapers back. I suspect this is what would happen again: residents and landscapers would simply ignore the new blower ban or electric mandate. And, I can assure you that we are not giving up our gas blower.

I have read the staff report on the pros and cons of banning leaf blowers altogether, or converting to electric blowers, or reducing the conversion time to one year. The issue isn't a one or two-year conversion period; it's whether to convert at all. Staff has done a good job of fairly identifying the issues, but I don't think the analysis fully addresses the pragmatic elements of implementing changes. Let me address some of those, as follows:

1. Should Atherton follow other cities in mandating a leaf blower ban or an electric conversion?

I am aware that other Bay Area cities have banned gas-powered blowers. There is a big difference though in the size of lots in Atherton versus Palo Alto, Los Gatos or Los Altos --- and this is the crux of the issue. It is simply impractical to convert to electric blowers in Atherton. They don't have the operating time or the requisite power to service our much-larger yards. Just because technology is available doesn't mean that it's the correct use for every application. In Atherton, it is not.

Atherton is largely comprised of 1+ acre parcels that take exponentially more time to “mow and blow”. We have relatively few quarter or third acre parcels that can be blown in 15 minutes. We also have considerably more debris because of the size of the lots and the magnitude of foliage. So, you need a blower that can operate for 30-45 minutes per yard and at a power level to move large amounts of refuse. The strongest electric blowers (600 CFM) only have chargers that last 15-20 minutes at maximum power, so you need 2-4 chargers to complete just one yard. If a landscaper is servicing just three Atherton yards a day, he needs 5-11 chargers. And, that night, each battery would take approximately 30-45 minutes to recharge, or 3-8 total hours of electric use --- with 5-11 chargers plugged into the wall. It is simply a fact that electric leaf blowers are not technically feasible for blowing anything but small yards or small patios, sidewalks and driveways. That's not what we have in Atherton.

While a number of cities have implemented electric blower conversion, Menlo Park and Redwood City have not. Candidly, the same landscapers that service our town, service homes in those localities on the same days. So, you are also asking the landscapers to carry two sets of equipment. Why two sets: because they are not going to use electric-powered blowers unless they have to. They are too impractical for widespread use. The landscaper has to cover a number of properties each day. There's simply no way that he can carry enough batteries for our large parcels and a number of smaller parcels in Menlo Park and Redwood City, on the same day --- and those cities allow gas. So, gas will be the preferred blowing method. All Atherton will accomplish is to make a few individuals feel better about

lower noise, which is a myth, and to make life much more complicated for the people that help us maintain our homes. Is that really what we want? No.

While we're banning gas blowers, why not ban gas lawn mowers? They have exactly the same level of noise (70 dBA), and they have carbon emissions. I don't hear anyone advocating for that though? Isn't it a bit hypocritical to continue to have gas lawn mowers but ban the blowers? Yes, it is.

Lastly, should the city require that electric blowers be used at city schools, the Circus Club or in Holbrook Palmer Park? If it takes 2-3 batteries for a residential parcel, I can't imagine the number required for St. Joseph's, the Menlo School, Selby Lane Elementary, Menlo Atherton High School, the Circus Club or Holbrook Palmer Park. That said, it might actually be a good idea to run a one-year test of electric blowers, by city personnel, at Holbrook Palmer Park to assess the feasibility of such. I do not think that residents should be forced to adopt a regulation that city staff have not tried first. Nor do I think that Atherton has to adopt an ill-conceived mandate just because other cities have done so. There's no honor in conforming to stupidity.

2. One motivation for eliminating gas-powered blowers is noise reduction. But, does converting to electric leaf blowers really reduce noise levels?

The answer is "probably", but this has to be taken into broader context. The average decibel level (dBA) of a gas-powered leaf blower is 80 decibels (range = 69-80). There are some gas-powered ones that operate at 65 dBA. How does this compare to electric blowers? Their average level is 70 dBA: just 10 dBA lower than the average gas-powered device. The quietest electric blower is 59 and 65 dBA (two different Ryobi models). So, the quietest gas-powered blower is exactly equal to the quietest electric blower. Maybe the answer to reducing noise is to require a lower dBA gas-powered blower versus mandating electric models? A 65 dBA gas model can be bought for \$619. That's 1/3 the cost of an electric blower and 5 extra batteries (see item 3 below). Of course, how do you monitor compliance, since one gas blower looks the same as another?

To put the noise argument in context, are we really reducing the noise levels that people encounter by mandating a blower conversion to electric? For comparison purposes, you must consider the noise levels that emit daily from machines around us. By comparison, consider a truck at 90 dBA or a car traveling at 30 mph (i.e., the speed limit on Atherton Ave.), which is 62-73 dBA. Are we now going to ban all trucks and cars? Car noise is only slightly less than a gas-powered leaf blower, and a Porsche is 95 dBA, so we had better ban all Porsche's immediately. By the way, all SUVs have a greater dBA level than the average car, so they are noisier than the gas leaf blowers. Should we ban any more purchases of SUVs? What about inside your home? The following devices emit greater noise than the gas-powered leaf blower: garbage disposal (80 dBA), dishwasher (80 dBA), blender (88 dBA), and vacuum (70-75 dBA). I guess we had better ban those, too, because they are doing far more harm than the gas-powered leaf blower. Of course, this would be ridiculous --- just as ridiculous as a mandated electric blower. And, how many of us really hear the gas blowers when we're in our homes? I don't.

It may be appropriate, however, to ban commercial use (not home owner use) of blowers on weekends and holidays, although a ban on air quality days is a stretch. Who even knows when those are? Do you really think a landscaper is going to know? No way.

Bottom line: the gas blower may seem to be noisy but the electric one will be, too, and the noise level is far less than our local traffic or the machines in our home. So, what have we accomplished if we ban gas-powered leaf blowers? Not much if we don't also ban cars and trucks --- and gas lawn mowers.

### 3. Electric leaf blowers will reduce carbon emissions.

It is true that gas blowers generate carbon dioxide, but it's also a ludicrous argument when China continues to build 1950's-style coal plants and uses coal as the primary heat source in its buildings. In case you aren't aware, China had more carbon dioxide growth in 2019 than the entire rest of the world, combined. So, don't tell me that I can't use my gas blower because of its impact on carbon emissions. What hypocrisy. I don't think that a conversion to electric leaf blowers in Atherton is going to save the planet or make one iota of difference to global greenhouse gases. If we really want to have a town impact on carbon emissions, then we need to mandate 100% electric cars --- but, we're not going to do that.

### 4. Converting to electric blowers will be costly for our landscapers.

When Portola Valley recently considered its leaf blower ordinance changes, Public Works Director Howard Young shared estimated costs with council members (ref: 1/11/19 Almanac article). He remarked that, "The switch to electric blowers can be costly. Whereas, a typical gasoline-powered blower costs between \$400 and \$600, an electric blower with all its associated equipment currently costs \$1,900. Some jobs will require gardeners to carry a spare battery, available currently for another \$850."

Howard Young is spot on. My own cost analysis matches his. At today's prices (on Lowe's web site), a good electric blower (i.e., "Ego" brand at 180 mph, 650 CFM) with a backpack, 1 battery and 1 charger is \$399. This is a powerful electric blower, but the battery time on the highest speed (needed for an Atherton property) is only 15 minutes. A spare 5 AH battery will cost \$249. You need at least 5 additional batteries (6 total) to mow three Atherton yards --- because they will only last 15 minutes each at high power. And, you need to buy five extra chargers at \$41 each to recharge them at night. The total cost is \$1,849 --- \$50 shy of Howard Young's estimate.

Lastly, the maximum life expectancy of an electric blower and batteries is 3 years. I actually find that our electric equipment doesn't last more than two years and we only use it once a week, not daily. The life expectancy of gas-powered equipment is many years longer. So, there's also equipment replacement cost to factor in. Electric blowers just aren't "industrial strength", and that's what professional landscapers need.

Bottom line: You are asking landscapers who make marginal profit to absorb \$1,900 (or more) to convert to electric blowers that may last 2-3 years. They are not going to do so gratuitously. So, the Atherton homeowner will be asked to absorb the extra expense. But, equipment is only the start. To change 2-3 batteries for every

yard takes added time and there's the extra cost of 4-8 hours of electricity to recharge the batteries every night (for just 3 yards). Every Atherton homeowner can expect their landscape fee to be increased --- perhaps significantly.

5. Who is going to enforce the new mandate?

Let's be honest, Atherton isn't even enforcing the mask mandate for landscapers. If we're not enforcing that in a pandemic --- and it's pretty obvious who is wearing a mask --- are we really going to enforce electric blowers or lower-decibel gas blowers. No --- because it would require neighbors to turn each other in. That's not what Atherton is about. My neighbor's landscaper comes many Saturdays and does not wear a mask: two violations. Am I going to call Monica Diaz over the landscaper? No. If we're not going to turn in landscapers, are we going to fine the home owner? I suspect that you'd be fining half of Atherton. Is that how we want city staff to spend their time? Hardly.

Summary:

I don't doubt that people who suggested a ban on blowers or a change to electric ones aren't well intentioned. In the "real world" though, this isn't pragmatic. It harms our landscapers and it harms homeowners, neighbors or city staff who have to: (1) put up with technology that doesn't work on larger properties, (2) absorb significant extra expense, (3) adopt changes that result in little environmental value, and (4) deal with a mandate that is impractical to enforce. Don't we have more important things to focus on like high speed rail, low cost housing mandates, and a barrage of state requirements for "everything under the sun"?

I have attached a sheet with consumer input from buyers of electric blowers. Universally, they express disappointment with battery life. That is the #1 problem with electric leaf blowers. You may want to consider this input.

Thank you for your attention.

## From buyersguide.org:

A leaf blower fueled by gasoline is suited for larger spaces. For someone looking to clear out more than a quarter-acre of land, consider a gas-powered leaf blower... Along with its maintenance, gas-powered leaf blowers are also noisier, emit smoke, and can be heavier to carry than an electric operator. However, when it comes to lasting longer while in use, gas power is the way to go.

## From Consumer Reports: Cordless Electric Leaf Blowers

Lightweight ... and maneuverable ... Know that by going free-range, you will sacrifice some power. Rechargeable batteries run for about an hour tops, so if the chore takes longer, you'll have to take a break while your battery juices up—or have a second battery on hand.

### Reviews of the EGO brand electric blower: 145 mph, 600 CFM (per amazon.com)

Carol's note: 600 CFM is a maximum power electric blower.

"It does not replace a gas powered backpack blower. If you look at the design, you will see why... It's not really a backpack blower at all. The backpack is just a battery holder... The tool end has the electric fan motor in it and is just stuck to the side of the backpack. It seems to have maybe half the pushing power of a full sized gas backpack blower.

"If you use their largest battery (7.2 AH) you get about 20 minutes of runtime ... This is really for use on a pretty small residential lot or you need multiple battery packs and some breaks in-between."

"Similar to using your shop vacuum with the hose attached to the discharge."

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"Plan your work to include 1/2 hour of good blowing, then it's off to the charger."

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"I knew that the battery (in turbo mode) would barely last 20 minutes. I didn't mind, since it charges up in less than an hour.

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"This blower is great, especially if you want to be cord free. It is not as strong as the strongest plug-ins, and 600 CFMs are the max when you push a "hyper" kind of button, and you will only get 20ish minutes of a 5 Amp out of it in that mode ... It is probably not the best for a huge yard with tons of leaves where you need high powered CFMs."

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"Not powerful folks. 259 for a 38 min use. That was 6 mins on the setting just below high and the rest on the 2nd to lowest setting... Perfect for someone who only needs 10 mins of run time on very high setting to blow plastic straws or dry napkins."

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"Battery dies after 20 min of using and takes 45 min to charge."

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"I liked the idea of no gas/oil mixing and the less damage to the environment. I have a very long driveway and a large yard. Immediately, I found that the blower is not powerful enough to move large quantities of leaves and sticks. It was necessary to operate in the turbo mode most of the time. In use for approximately 1/2 hour in turbo, the battery was exhausted and needed a recharge. I was able to complete about 1/2 the driveway. If you have a small yard, limited amount of deck or just clearing a few blowing leaves, this might work fine. But due to the strength of the actual "blow" and limited battery life, a job might take hours and hours."

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From Carol, here's the real punchline:

"I bought one of these ... to see how it would perform when compared to a gas powered backpack blower. Bottom line is that it's a very nice device. It is comfortable and lightweight but is a toy when compared to a gas blower. I got less than 15 minutes out of a fully charged battery. I'm sure that I would have gotten more if I had turned down the speed/power dial to lower settings but those settings are essentially useless for moving leaves/dirt. I had to keep it at the highest setting the whole time I was using it and often had to use the Turbo button to move piles of leaves of any real size. There is no way to replace a gas-powered backpack blower with one of these without having to buy at least 4 batteries to go with it."

### Reviews of Dewalt Brand: 125 mph, 600 CFM

"Have never used a gas backpack w/ the power this thing has. Red max or echo doesn't make a model this powerful. That said it runs on a battery so it's got a short life - 25 minutes is as long as it will run at full power.

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"This thing has plenty of power! I used immediately after rain and all the "stuck" stuff on my driveway blew right off. You can feel this thing pushing back when its "spooled up". One downfall (besides price), you guessed it: it's a battery hog. I'd say 25 minutes or so."

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On the down side, it does not hold a charge that long ... about 25-30minutes. So, if you have a larger yard think twice about buying this one...or buy more batteries (wait till you see how much those are)."

Similar comments with Makita brand.

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Dan Leemon](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Comments Re Proposed Leaf Blower Ordinance  
**Date:** Monday, November 16, 2020 7:10:45 AM

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**From:** Dan Leemon <[REDACTED]>  
**Sent:** Friday, November 13, 2020 8:18 PM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Subject:** Comments Re Proposed Leaf Blower Ordinance

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Dear Stephanie,

We live at [REDACTED] Avenue and wish to respond to the request for comments regarding the proposed Leaf Blower Ordinance.

- 1) We support any and all limitations on the use of leaf blowers including hours, noise level, and banning gas-powered blowers.
- 2) We would suggest and support limitations be placed on frequency of use and duration of use. We have an immediate neighbors whose landscapers blow for several hours at a time several times a week. This is difficult to deal with from a noise and dust perspective.
- 3) We would also suggest and support limitations on the proximity to boundaries and boundary walls where blowers can be used. It is not uncommon for us to see clouds of dust being blown over our fences by leaf blowers being used just on the other side of the fence or, as we walk about the neighborhood, clouds of dust being blown into the street over a resident's solid fence or wall.
- 4) We support education and enforcement efforts, and would recommend a series of calls to all residents clarifying restrictions and enforcement. We also suggest very clear guidelines for landscapers to follow (such as distance from property line where blowers can be used).

Thank you very much for your attention — here's to a quieter, less polluted, and more serene Atherton. Feel free to contact us with any questions.

Be well,  
Dan Leemon and Julie Dorsey  
[REDACTED]

**From:** [Bill Widmer](#)  
**To:** [Anthony Suber](#)  
**Subject:** Fwd: Leaf Blower Ordinance - I would like this read into the public record  
**Date:** Friday, November 13, 2020 4:13:34 PM

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**From:** Kathy McKeithen [REDACTED]  
**Date:** November 13, 2020 at 4:00:28 PM PST  
**To:** "William R. Widmer" <[bwidmer@pacbell.net](mailto:bwidmer@pacbell.net)>  
**Subject:** Leaf Blower Ordinance - I would like this read into the public record

Hi Bill,

I just skimmed the proposed leaf blower ordinance that I see is before the council this coming week.

I want to say this:

Like the proposed encroachment ordinance, I think this is going too far, too fast. This is a 40 page document being proposed just a week before Thanksgiving that will effect virtually every household in the entire Town in a fundamental way. Most people will never have heard of these changes, will certainly never have read the 40 page document (posted just 5 days before the meeting) and may well find themselves unable to cope with these changes.

Why propose such an all-encompassing, lengthy document to the Town just before the holiday season, during a COVID epidemic without greater notice and a better chance for input? Why not send out a short survey to

the Town residents, alert them to the proposed changes and ask for input?

I believe this ordinance has been seen only by the Environmental Committee who have already solicited residents to support the ban. As homeowners Smith and I were one of the first in Town to put in solar panels. As PG&E can attest when they did an energy survey on our home and thought we lived in a bungalow, we use very little energy. The same goes with water usage. Our household is adamant about recycling all kinds of things. However, when it comes to clearing an acre of land and using electric blowers or raking (something we did for more than 20 years), it just does not make sense at the present time. We have purchased an electric blower and try to use it as much as possible, but it cannot be used for all purposes. The council needs to think this out and consider the limited alternative technology. As for limiting it to weekdays, our gardener comes on the weekends and, perhaps THAT is better for the environment. There are too many variables in the proposed ordinance to simply rush this through.

We have already seen what happens with regard to enforcement. Is this to be enforced by a Code Enforcement Officer? On a complaint basis? If the encroachment ordinance is any indication, hundreds of additional cases will end up on the enforcement officer's desk. But what about timely proof? It is one thing to prove a stone in the right of way, another to prove a gas blower was at work on a Sunday. Are we to pit neighbor against neighbor? A penalty the cost of an electric blower? Really? What does that mean?

I see that 33 cities within the entire United States have a complete ban on gas blowers. Most of these cities are composed of lots considerably smaller than those in Atherton. Many have far less green vegetation, which makes a difference. There are, of course, always variables. These are things that should be considered. An ordinance like this should not be rushed as I perceive this one is being rushed at the worst possible time.

Even staff cannot agree if there should be a one or two year roll out. Yet private clubs may get 4 years. Why? They may well have greater access to funds to offset the new costs than some of the Town's residents. And most importantly why is the Town going out of its way to ask specifically what Menlo Park thinks about a leaf blower ordinance, and why is staff asking local private schools and a private club for its concerns but not showing the same courtesy to its residents?

If it is the right thing to do it should be backed by the residents of the Town after full and timely input and careful consideration -- by the Town specifically asking EACH resident for input-- not pushed through what looks like "behind closed doors".

Kathy and Smith McKeithen

(Bill - Please read this into the minutes)

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Laurent Mayer](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf blowers comments  
**Date:** Friday, November 13, 2020 3:59:27 PM

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**From:** Laurent Mayer <[REDACTED]>  
**Sent:** Friday, November 13, 2020 3:45 PM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Subject:** Leaf blowers comments

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Hello,

Leaf blowers are a nuisance. Too noisy. Polluting.  
I think the town should require electric leaf blowers only. Or have a maximum decibel rating.  
If these are still too noisy, I wouldn't mind if leaf blowers are banned altogether...

Leaf blower manufacturers should pay more attention to the noise level of their machines.  
Same for lawn mowers.

We drown in noise!

Laurent Mayer  
[REDACTED]  
Atherton

**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Peter Oshman](#)  
**Cc:** [Stephanie Oshman](#); [Barbara Oshman](#); [Dave Braker](#); [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf Blowers  
**Date:** Friday, November 13, 2020 2:44:50 PM

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**From:** Peter Oshman <[REDACTED]>  
**Sent:** Friday, November 13, 2020 12:15 PM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Cc:** Stephanie Oshman <stephanie@oshman.com>; Barbara Oshman <barbara@oshman.com>; Dave Braker <drbraker@gmail.com>  
**Subject:** Leaf Blowers

Dear Stephanie,

I am writing about the blower issue to be considered by the Town.

California leads the nation in ecologically minded legislation and regulation. We can be proud we push the rest of the country to think about and take action on issues directly impacting the future condition of the planet. Unfortunately, the expense related to being this leader is paid in a variety of ways, directly by, the residents of California.

I moved to Atherton in 1983 and have lived on three properties here during that time. What I know is maintaining the properties is cumbersome and takes manpower. The noise of blowers is and always has been a fact of life here and it makes sense. People keep their properties looking beautiful, which in turn keeps the town looking beautiful. The silver lining for blowers making noise on your next-door neighbor's property in Atherton is, they are at least an acre away.

The increased costs related to regulating blowers would include new equipment, increased manpower and enforcement, which even if covered by fines to landscapers, ultimately would flow through to a cost burden on Atherton residents. The amount spent on landscaping in town by owners is already staggering. This would forever substantially increase those amounts. I'd estimate banning gas blowers would increase my already immense landscaping costs by 20%-25%.

While it would be positive to introduce ideas geared towards pushing for positive change around blowers, perhaps by incentivizing use of electric blowers, implementing sweeping changes such as flat out banning gas blowers, would cause increased expenses for homeowners as soon as implemented. It may sound like a cheap gripe, but every small increase to what are already quite substantial costs to maintain property makes that bottom line cost go up.

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I am not well versed in noise and blower issues, nor do I know the history in Atherton, but I urge the council to pursue this issue in a measured manner. The council knows they have a fiduciary responsibility to the residents when it comes to managing the town budget, but please keep in mind, that responsibility extends to impacting the cost of living for Atherton residents. The Council has an implicit mandate to maintain the quality of life in Atherton. A mandate which needs to be approached with as much concern for the Council's fiduciary responsibilities to the residents, as for their duty to maintain that quality of life.

Thank you,  
Peter Oshman

[REDACTED]

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Peter Oshman

[REDACTED]

**From:** [Regina Riviello](#)  
**To:** [Stephanie Bertollo-Davis](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf Blower Ordinance  
**Date:** Thursday, November 12, 2020 4:13:09 PM

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**From:** Regina Riviello [REDACTED]  
**Sent:** Thursday, November 12, 2020 3:33 PM  
**To:** Stephanie Bertollo-Davis <SBertollo-Davis@ci.atherton.ca.us>  
**Subject:** Leaf Blower Ordinance

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Dear Ms. Bertollo-Davis,

As a life-long resident of Atherton, I've been hoping for a something like this for almost 25 years. After living on the corner of Amador and Stockbridge since 1993, I have felt like someone around me is using a leaf-blower 24/7. When my children were little gas-powered blowers disrupted naps and interfered with recuperation when they were sick. Today, they are a constant barrier to productive Zoom meetings during distance learning. I can't have my dogs outside while my direct neighbors are having mowing and blowing because they will bark, and inevitably, I am the one who gets the noise complaint. If there is anything at all that I can do to help support and advance this measure, please let me know. Many Thanks,  
Regina Riviello

[REDACTED]  
Atherton, CA [REDACTED]  
[REDACTED] 3

Sent from my iPhone

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**From:** [Stephanie Bertollo-Davis](#)  
**To:** [Sara Richter](#)  
**Cc:** [Anthony Suber](#); [Francesca Reyes](#)  
**Subject:** Re: Leaf Blowing  
**Date:** Friday, November 13, 2020 2:42:25 PM

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**From:** Sara Richter [REDACTED]  
**Sent:** Thursday, November 12, 2020 4:57 PM  
**To:** Stephanie Bertollo-Davis <[SBertollo-Davis@ci.atherton.ca.us](mailto:SBertollo-Davis@ci.atherton.ca.us)>  
**Subject:** Leaf Blowing

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Hello,

I'm a resident of Lindenwood. In theory, I support regulating leaf blowers due to the noise and environmental impact. But I do wonder, what the alternatives are...

Thank you,  
Sara Richter  
[REDACTED]

**From:** [Kathy L. May](#)  
**To:** [Council](#)  
**Subject:** gas leaf blowers  
**Date:** Wednesday, November 4, 2020 11:06:33 AM  
**Attachments:** [Gas Leaf Blowers.pdf](#)

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**[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]**

Hello, please see the attached presentation on gas leaf blowers. Here in Atherton, they are being used constantly, all day. With climate change, air pollution, drought, and fires, perhaps it's time to address this low hanging fruit issue. Perhaps it's time to consider a gas leaf blower ban in order to become a more sustainable city. I am also attaching an additional article on landscape equipment and ground level ozone pollution, please read. <https://www.facebook.com/photo/?fbid=10218947631265765&set=gm.3444449672309950>

Thank you!  
Kathy May

# Why Restrict Gas Leaf Blowers?

## *Health Risks and Alternatives*



This talk has been shared with us by Lucy Weinstein, MD, MPH

Co-Chair, Committee on Environmental Health

NY Chapter 2 (Long Island)

American Academy of Pediatrics

and

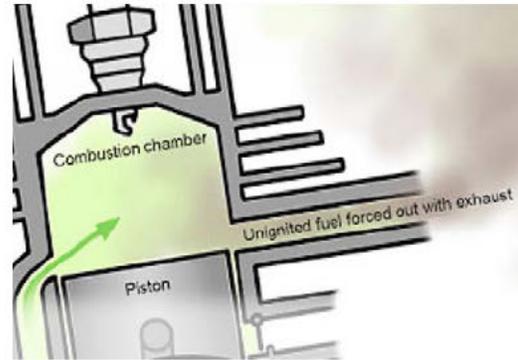
Assistant Clinical Professor of Preventive Medicine

SUNY @ Stony Brook School of Medicine



# Why Should Communities Restrict Gasoline Leaf Blowers?

## ▶ Gas Exhaust Pollution



## ▶ Fine Particulate Pollution



## ▶ Noise Pollution





## What are Alternatives to Gas Leaf Blowers (GLBs)?



- ▶ Commercial and residential economically viable lithium ion battery alternatives now exist
  - ▶ Batteries are safe and recyclable
  - ▶ Rapid return on investment
- ▶ Rakes and broom are ideal
  - ▶ May not yet be acceptable to homeowners/landscapers
- ▶ Mulching mowers
  - ▶ Better for environment



# GLB Risks Outweigh Benefits

## Benefits?

- Perceived increased efficiency and efficacy - *false*
- Perceived economic benefit - *false*



## Risks

- Increased equipment costs
- Worker health hazards
- Homeowners/neighbors health hazards
- Hearing loss
- Decreased productivity of nearby adults/children
- Increased air pollution
- Disrupted ecosystems
- Lawsuits for landscape companies

# Children are Particularly Vulnerable

- ▶ Faster breathing rate
  - ▶ Breathe more air/pound body wgt than adults
- ▶ Smaller than adults....lower to the ground
- ▶ Organs are still developing
  - ▶ Brains, lungs, kidneys
  - ▶ “Window of vulnerability”
- ▶ Greater interaction with the outdoors
  - ▶ Warmer months particularly
  - ▶ Times when GLBS most in use



# Others with Great Vulnerability

- ▶ Landscape workers
  - ▶ Rarely use protective devices
  - ▶ Work long hrs close to source
  - ▶ Breather harder and more deeply
- ▶ Senior citizens
- ▶ Pets
- ▶ Those with lung or heart disease
- ▶ Pregnant women



# Exhaust Pollution



- 1 gas-powered leaf blower generates as much exhaust pollution in 1 hr as 17 cars traveling slowly
- Cars disperse their pollutants over long stretches of road, while blowers concentrate their pollutants in 1 neighborhood
- 2-stroke engine fuel is a gas-oil mixture that is especially toxic compared to automobile emissions.

# Leaf Blowers and Air Pollution

## ▶ Volatile organic compounds (VOC)

- ▶ Benzene
- ▶ 1,3 butadiene
- ▶ Acetaldehyde
- ▶ Formaldehyde

## ▶ Nitrogen oxides (NO<sub>x</sub>)

## ▶ Carbon monoxide

## ▶ Carbon dioxide

## ▶ Hydrocarbons

## ▶ Particulate matter

\*Hazardous air pollutants (HAPs) = as pollutants that cause or may cause cancer or other serious health effects. Source: EPA  
Small particles are formed by a mix of components , eg, acids, organic chemicals, metals, soil, dust.

## HAPs\*

- Toxic
- Carcinogenic and/or
- Ozone-forming

## Small lawn/garden engines: A major contributor to emissions

- ▶ In the United States, 2010:
  - ▶ VOCs: 515,000 tons
  - ▶ NOx: 121,000 tons
  - ▶ PM2.5\*: 25,000 tons
  - ▶ PM10\*: 26,000 tons
- ▶ Account for 5%-10% of total US emissions of carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and PM2.5.

NOx: Nitrogen oxides; PM: particulate matter; PM2.5:  $\leq 2.5$   $\mu\text{m}$  in diameter; PM10:  $\leq 10$   $\mu\text{m}$  in diameter; VOC: volatile organic compounds

\*Sources: Michaels H, US EPA. NONROAD Overview presented at the 2012 International Emission Inventory Conference, 2012. US EPA 2005 data in Volckens J, Olson DA, Hays MD. Atmospheric Environment 2008;42:1239-48.



# Gas Leaf Blowers: Thousands of Tons of Pollutants/Year

**Nitrous  
Oxides**

**Volatile Organic  
Compounds**  
toluene, benzene,  
formaldehyde and others

**Fine  
Particulates**  
<2.5 microns

**Carbon  
Monoxide**

**“Ozone and particle pollution threaten the health of  
millions of Americans.”  
--American Lung Association**

# Air Pollutants Produced by Gas Leaf Blowers

- ▶ Volatile organic compounds (VOCs) from burned and unburned fuel
  - ▶ Toxic, carcinogenic
  - ▶ Combine with nitrogen oxides in the air to form ground-level ozone (smog)
- ▶ Nitrogen oxides, carbon monoxide, carbon dioxide\*
- ▶ Benzene, 1,3 butadiene, acetaldehyde, formaldehyde\*\*
- ▶ Polycyclic aromatic hydrocarbons

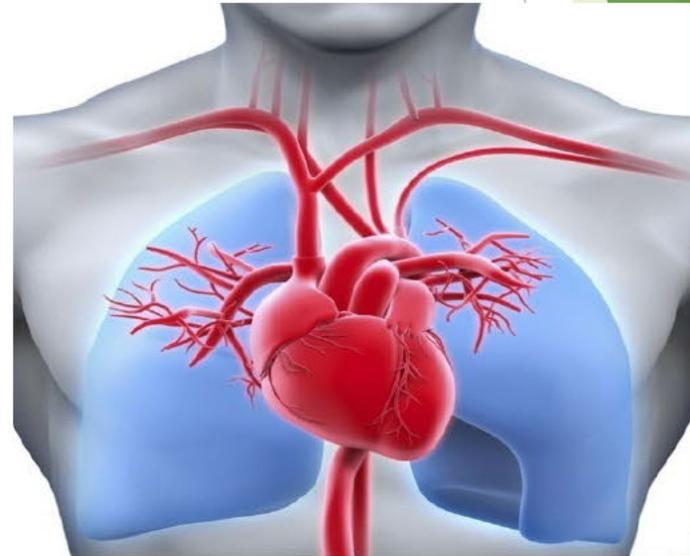


\*considered by EPA to be “Criteria Pollutants”: harmful to public health and the environment

\*\*EPA considers these “Hazardous Air Pollutants“: cause or may cause cancer or other serious health effects

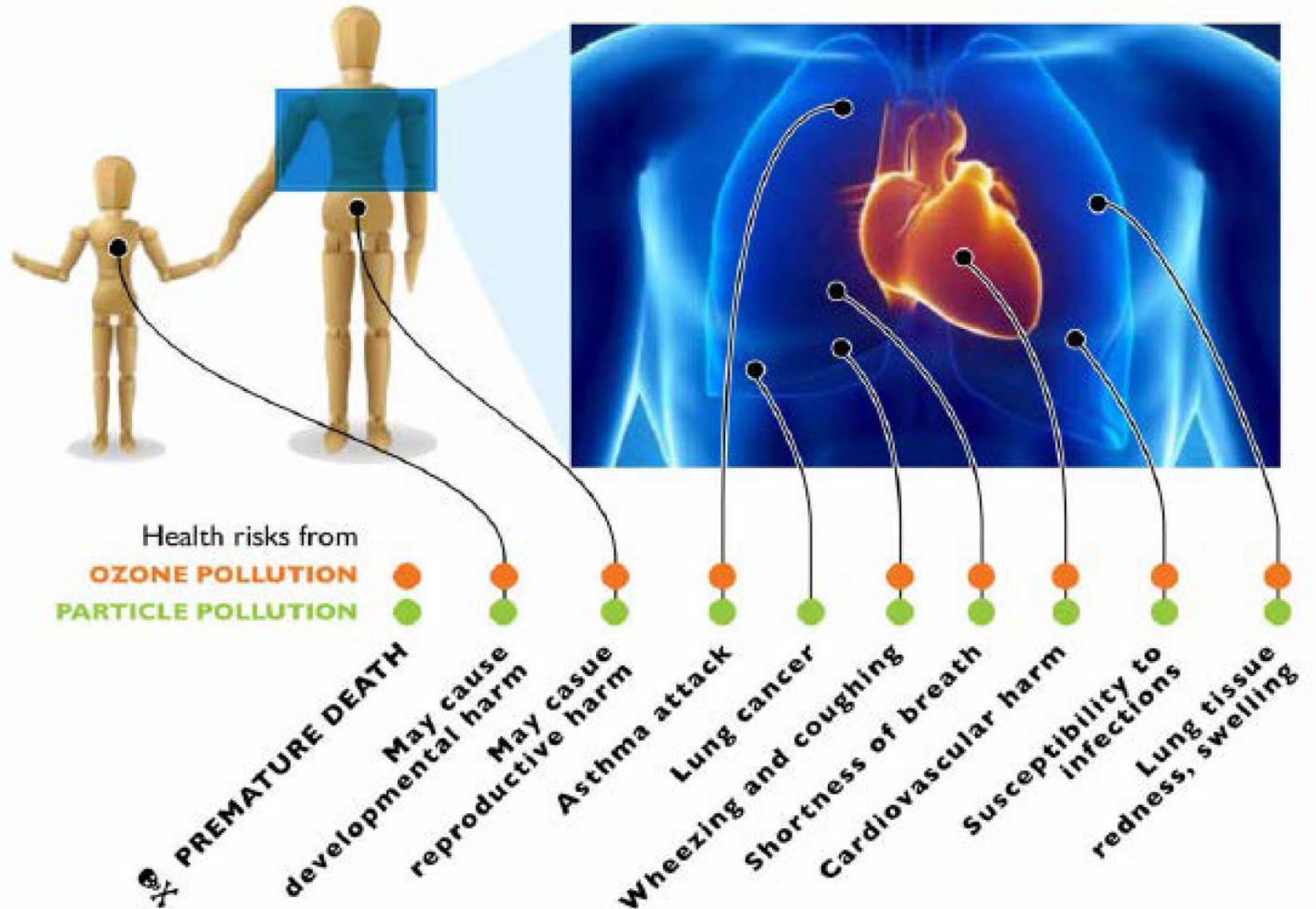
# Health Effects of Exhaust Pollution (“Hazardous Air Pollutants” and “Criteria Air Pollutants”\*)

- ▶ Respiratory irritants
- ▶ Increased cardiovascular disease
- ▶ Increased risk of cancers:
  - ▶ Breast, lung, bladder, leukemias



\*According to the EPA

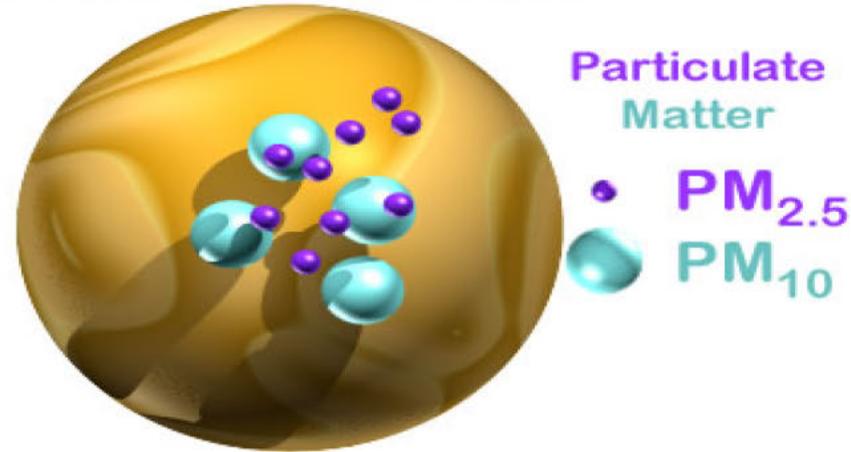
# Health Effects: Gas Lawn Equipment



Source: American Lung Association

# Fine Particulate Pollution

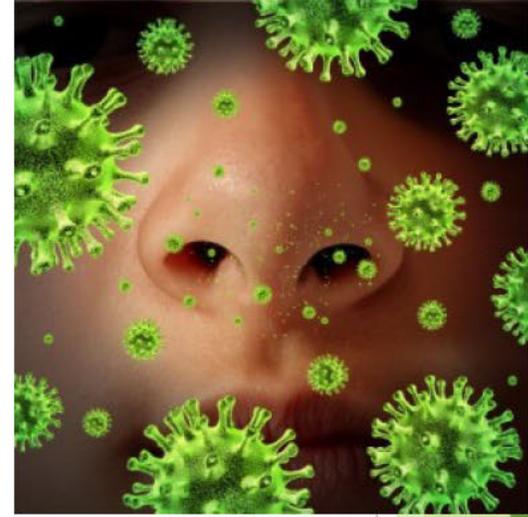
Beach Sand Grain



*The smaller the particle,  
the deeper it penetrates into the lungs and  
the more hazardous it is to breathe.*

# Possible Particulate Components

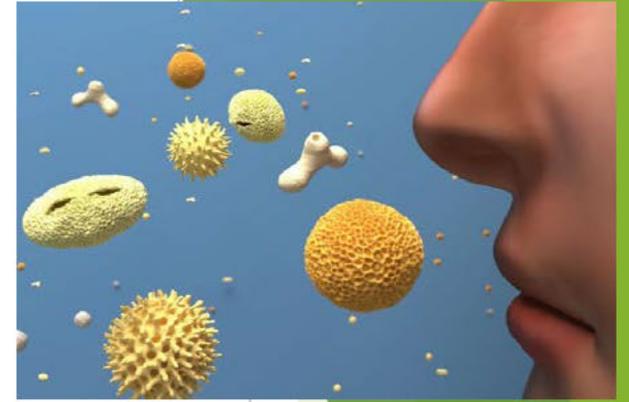
- ▶ Mold, fungus spores
- ▶ Pollen
- ▶ Insect eggs
- ▶ Heavy metals
- ▶ Animal feces
- ▶ Weed seeds
- ▶ Fertilizer products



*Approximately 5 lbs particulate matter  
per leaf blower/hr are blown up*

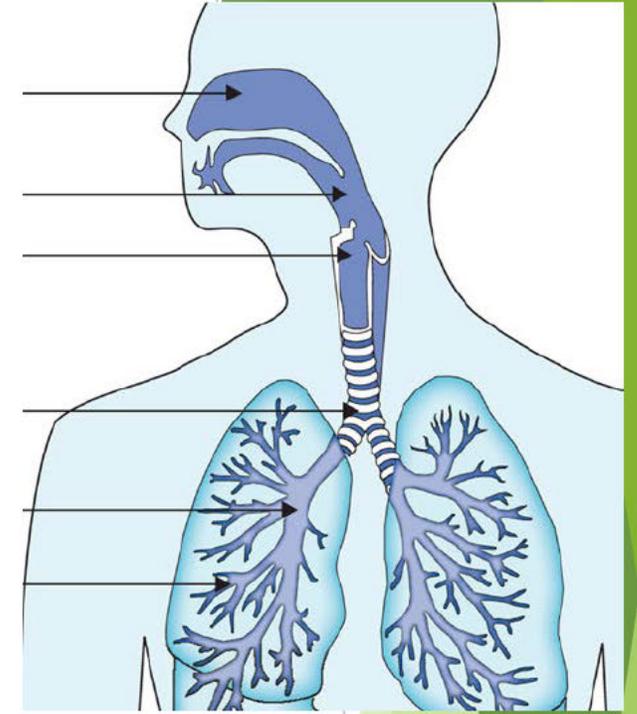
# Risks of Particulates

- ▶ Exposure in pregnancy:
  - ▶ Premature birth
  - ▶ Low birth rate
  - ▶ Increased autism risk (with 3<sup>rd</sup> trimester exposure)
- ▶ Decreased fertility
- ▶ Heart attacks
- ▶ Irregular heartbeat (arrhythmias)
- ▶ Strokes
- ▶ Congestive heart failure



# Risks of Particulates (Cont.)

- ▶ Worse cognitive function in older adults
- ▶ Lung diseases
  - ▶ Cancer
  - ▶ Asthma attacks
  - ▶ Bronchitis
  - ▶ Increased severity of chronic lung disease in elderly
- ▶ Reduced life expectancy



***Even Low Levels Increase Death Rates***

**Gas Leaf Blower  
Noise:  
More Than  
Just An Annoyance**



# Leaf Blower Noise

- ▶ Noise levels in decibels (dB)\*
  - ▶ 100–115 dB
  - ▶ 65–75 dB at 50 ft
  - ▶ Higher levels with >1 machine
    - ▶ Exceeds noise safety standards set by WHO and US EPA
- ▶ • Noise characteristics
  - ▶ Pure tone (narrow frequency) component
  - ▶ Frequent throttling up and down
  - ▶ Chronic, prolonged duration
  - ▶ Carries over long distances
  - ▶ Penetrates walls/windows



\* Ambient noise in a quiet area is generally in the range of 40–45 dB.

# Health Risks of Noise



- ▶ Increased stress hormone levels, which →
  - ▶ High blood pressure
  - ▶ Abnormal glucose metabolism
  - ▶ Obesity
  - ▶ Stroke, heart disease
- ▶ Sleep disruption
- ▶ Hearing loss, tinnitus
- ▶ Lost productivity/ poorer task performance
  - ▶ School children: lower test scores\*
- ▶ Hyperactivity
- ▶ Impaired communication and social interaction

*\*Over 20 studies have shown that noise adversely affects children's academic performance*

# Health Organizations Call for Leaf Blower Restrictions



- ▶ Medical Society of the State of NY
- ▶ Massachusetts Medical Society
- ▶ American Academy of Pediatrics
- ▶ American Public Health Association
- ▶ Children's Environmental Health Network
- ▶ Harvard Medical School
- ▶ Local hospitals, health networks

Let's Work Towards  
A Cleaner and Healthier  
Environment  
for  
All of Us

*Thank You*



# Additional Resources

- ▶ <https://www.fairwarning.org/2017/09/leaf-blower/>
- ▶ [Noisy, But That's Not All](#)
- ▶ Leaf Blowers Flagged as Prodigious Polluters -- And Possible Health Threat
  
- ▶ **Study: Gas leaf blowers put out more pollution than F-150 trucks**