LAKESHORE
Homes Association
Incorporated 1917

Leaf Blowers

Numerous neighbors over the years and many this year have voiced concern and displeasure about leaf blowers in our area.

Leaf blowers are an ipso facto nuisance, creating noise, air and particulate pollution. The LHA Board is proposing a ban on use of all leaf blowers in the Lakeshore Homes Association. The Board is soliciting member input this winter through email and conversational meetings before a final rule is determined and approved (by the Board).

Included here is a fact sheet highlighting the hazards of leaf blowers and the many California cities banning blowers. Piedmont banned them in 1990, Berkeley in 1991 and Los Angeles in 1998. Richmond has a ban, too. The City of Oakland has no immediate plans to address leaf blowers.

In the meantime, consider asking your gardeners or employees (and yourselves, if you use one) not to use gas or electric leaf blowers. Save the air, and use a rake and broom.

The facts

Noise
An average gas leaf blower measures 70-75 dB at 50 feet and as much as 90 dB closer. Electric blowers typically are rated 65 dB. The UN, WHO, and EPA all recommend general daytime noise levels of less than 55 dB to prevent significant community annoyance. All leaf blowers exceed this annoyance threshold.

Like the seismic Richter scale, the decibel scale is logarithmic. Each increase of 10 = 10 times louder. So between an ideal noise level of less than 55 dB and the average of 75 dB is a 100-fold change in volume.

Air pollution
1 hour of gas-powered leaf blowing = 100 miles of driving a car, in general air pollution.

Combustion exhaust pollution from most gas blowers remains suspended in the air and is easily assimilated into the lungs. Studies shows particulate matter can increase asthma attacks and bronchitis, and reduce infection-fighting ability. Children and the elderly are most susceptible.

Particulate pollution
The high velocity air jet generated by leaf blowers spreads dust, fungi, fecal matter, pesticides, chemicals, fertilizers, spores and street dirt (particulate pollution).

One leaf blower can affect 8–14 neighbors with its particulate pollution, and at least that many with its noise.

Compassion
Blowers are routinely used less than 50 feet from non-consenting pedestrians, pets and neighboring homes.

Gardeners using leaf blowers are detrimentally impacted by direct exposure to the air pollution blowing around their work space, and even with hearing protection can suffer vibration-induced hearing damage.

The livelihood of gardeners is not adversely affected without leaf blowers. The workload increases by 1/16 or 6%, according to a City of Claremont study of municipal gardeners.

Leaf blowers move one's debris onto the sidewalk, street, storm drains, and even neighboring yards. They don't really clean the area.

Summary
Both gas and electric leaf blowers exceed the WHO's and EPA's reasonable sound threshold.

Both gas and electric leaf blowers create excessive particulate pollution.

The noise and particulate pollution adversely affects unsuspecting, non-consenting neighbors at home (retirees, in-home workers, children, day sleepers, ill or disabled), and your pets.

Bay Area cities with bans: Piedmont, Berkeley, Richmond, Mill Valley, Palo Alto, Menlo Park, Saratoga, Sunnyvale

If the ban is approved, consequences of not complying may include:

1. If two or more LHA homeowners complain to the LHA Administrator that a leaf blower is regularly used on your property, a warning letter will be sent to you requesting compliance within a reasonable timeframe.
2. Continued use may result in a General Violation fine(s) of $100 - $850 each.
3. Repeated offenses may result in additional fines, per the Fine Policy > Fine Schedule - General Violations in the Annual Disclosure document.

Share your constructive comments by email the Board at blowers@lakeshorehomes.net. We will hold conversations and gatherings this winter for your input, as well.

Thank you,

Lakeshore Homes Association

Attachment (1)

Attachment: Leaf Blowers

Noise

The World Health Organization and United Nations jointly sponsored a report, “Environment Health Criteria 12. Noise," which contained the collective views of an international group of experts. The report findings recommended “general daytime noise levels of less than 55 dB to prevent significant community annoyance.” The EPA reached a similar finding.

All leaf blowers— both gas powered and electric — exceed this “annoyance” noise threshold. The average gas powered blower measures 70-75 dB at 50 feet and as much as 90dB in very close proximity. Electric powered blowers are typically rated at 65 db. Click here to see sample dB levels for various leaf blower models. (http://www.simplyadditions.com/Lawn-Garden/The-Ultimate-Leaf-Blower-Buying-Guide.html)

Leaf blowers are routinely used less than 50 feet from non-consenting pedestrians and neighboring homes that may be occupied by home workers, retirees, day sleepers, children, the ill or disabled, and pets.

In addition, the “pure tone” (narrow frequency band) component of leaf-blower noise and the constant throttling up and down typical of leaf-blower use further exacerbates the annoyance.

While the difference in decibels may seem modest, it is important to note that the decibel scale is logarithmic; each increase of 10 represents noise 10 times louder. So the difference between the ideal decibel range of 55dB and many leaf blowers at 75 dB is a 100-fold change (10 x 10) in volume. Like the Richter scale measuring earthquakes.

Air Pollution

Leaf blowers generate as much pollution in one hour as a car driven for 100 miles produces. (Source: Los Angeles chapter of the American Lung Association research)

Exhaust pollution from two-cycle gas engines is a large contributor of carbon monoxide (CO), nitrous oxides (NOx), hydrocarbons (HC), and particulate matter (PM). Combustion exhaust particulate matter remains suspended in the air for hours—sometimes days—and is easily assimilated in the lungs. The EPA and Air Resources Board (ARB) state that such particular matter can increase the number and severity of asthma attacks, bronchitis and other lung diseases and reduce ability to fight infections. Those particularly affected are children and the elderly. (Source: Orange County Board of Supervisors)

Particulate Pollution

The high velocity air jet generated by leaf blowers, especially those with velocities of 185 miles per hour or more, spreads dust, fecal matter, pesticides, fungi, chemicals, fertilizers, spores, and street dirt which consists of lead and organic and elemental carbon.

Each leaf blower puts 5 lbs. of particulate matter per hour into air, according to the Air Resources Board estimates, and can drift in the air for days before settling. The EPA and ARB state that such particulate matter can create the same health risks as exhaust pollution.

One resident's leaf blower can affect 8 to 14 neighbors. (Source: Bay Area Air Quality Management District 2010 & Zero Air Pollution LA)

Some of the California communities that have banned leaf blowers

More than *100 California cities* restrict or ban leaf blowers. Those with bans include:

- ✓ Piedmont (banned since 1990)
- ✓ Berkeley (banned since 1991)
- ✓ Mill Valley
- ✓ Richmond (banned at certain times of day)
- ✓ Saratoga
- ✓ Menlo Park
- ✓ City of Los Angeles (since 1998, banned 500 feet away from residential areas)
- ✓ Palo Alto
- ✓ Sunnyvale
- ✓ 30 Orange County cities

Gardeners

Leaf blowers are also unhealthy for the gardeners who operate them. Even those that have hearing protection can suffer from vibration-induced hearing damage. They are also subjected to significant direct exposure to the air pollution generated by gas-powered blowers and the particulate pollution generated by both gas and electric blowers.

Banning leaf blowers has not been found to detrimentally affect the livelihood of gardeners either. For example, the city of Claremont decided not to use leaf blowers in the maintenance of city property. They quantified the increase in workload using rakes and brooms as 1/16 over using blowers, an increase of about 6%. Those communities banning leaf blowers still have a significant presence by gardeners.

Miscellaneous

Something we all know but often doesn't get discussed: leaf blowers don't really clean the area. They just move a resident's mess onto the sidewalk, street, to adjacent properties and into storm drains and the air. Keeping storm drains clear will be especially important should predictions about an El Niño winter materialize.

- Two cycle versus 4 cycle gas leaf blowers
- Two cycle gas-powered leaf blowers were introduced into the U.S. in the 1970s.
- Exhaust pollution from two-cycle engines is a large contributor of carbon monoxide, nitrous oxides, hydrocarbons and particulate matter.
- 30% of the fuel of inefficient two-stroke leaf blower engine is blown into the air unburned. (Source: Orange County Grand Jury Report 2009, p.1 & CA EPA Air Resources Board 2000, pp.50-51)
- Gas-powered models come in either two-stroke or four-stroke designs. Two-stroke motors, common in older blowers, use a single crankshaft revolution per piston cycle (one upstroke and one down). This puts intake and exhaust in the same cycle — part of the reason that two-strokes are such polluters. Four-strokes, which have one cycle for intake and one for exhaust, tend to be heavier but also cleaner.
- Because they are cheaper, lighter, more powerful and easier to operate and maintain, most landscaping crews using 2-cycle models instead of 4 cycle.
- The Air Resources Board states that "there are approximately 410,000 gasoline-powered blowers in use in the state today. . . (99%) [of blower operators] utilize two-stroke engines." (Source: http://www.zapla.org/links/ref.html#LB14). Although this fact is a few years old, still the majority of blowers in use are two-stroke.