The Town of Bedford's New Leaf Blower Law

Summary and Frequently Asked Questions

The Town Board of the Town of Bedford on June 19, 2018 adopted a new local law to regulate the use of leaf blowers. The new law takes effect on August 15, 2018 except for an "off-season" rule in the Hamlet Zones which don't take effect until 2019.

We wish to help the community with the new law.

How the Law Came About and Summary The law came about due to the noise and pollution which gas powered leaf blowers create. The Town Board worked for a number of months with Town staff and the Leaf Blowers Task Force and relied heavily on feedback from members of the community, especially those who considered as too stringent some proposals earlier under consideration. The Board adopted hours and days of use which are uniform throughout the Town. The Board did not adopt certain other provisions, such as complete bans, licensing of landscapers, requirement to obtain a permit or as short a "leaf season" as in other towns. There are two special rules for Hamlet Zones (see below), which are primarily smaller lots and based on zoning districts, otherwise Hamlet Zones are treated the same as the rest of the Town.

Effective August 15, 2018:

Hours Permitted for Leaf Season
September 16 through May 14

Weekdays
8:00 AM through 6:00 PM

Saturdays and Holidays
10:00 AM through 4:00 PM
No Sundays

Hours Permitted Off Season
May 15 through September 15

Weekdays
9:00 AM through 5:00 PM

Saturdays and Holidays
10:00 AM through 4:00 PM
No Sundays

Special Rules for Hamlet Zones

Year round: one leaf blower at a time and no push-behind blowers

Off–season (effective 2019): no gas powered blowers during off season

Why address leaf blowers and not other equipment? There already are provisions in the Town's Code which deal with noise from other equipment. The reason leaf blowers are singled out is because the pollution and noise from them exceed that emanating from most other commonly used lawn equipment. Gas powered leaf blowers have a particularly penetrating low-frequency (low pitch) sound, which can carry for far longer distances and penetrate through walls and windows in a much more pervasive way than the high-frequency (high pitch) sound of a lawn mower. They are also highly polluting, which is detailed below. Aside from the lawn mower, leaf blowers are the only other piece of yard equipment used routinely as part of landscaping, very often when their use could be replaced by other equally effective landscaping practices.

Why are there some rules which only apply to Hamlet Zones and not the entire town? Some who have commented on the special rules oppose the rules in their entirety. Others want their streets excluded from the Hamlet Zones. There are others who want their streets included. Some think it is discriminatory and don't feel there is a valid justification for the distinction between small lots and large lots. The distinction is based on the fact that, due to the proximity of houses on smaller lots in the Hamlet Zones, leaf blower use, particularly gas powered leaf blowers, have a much greater impact from noise and pollution in the close quarters of the Hamlet Zones. No other municipality in Westchester County with a leaf blower law has the wide range of zoning districts as we do here in Bedford. Zoning districts have been in existence for many decades and different rules apply to different districts for many types of uses. Other municipalities around New York State also have leaf blower regulations that differentiate based on lot size. Many of the municipalities with leaf blower laws that ban gas leaf blowers primarily have smaller lots similar to the Hamlet Zones. Examples of municipalities in Westchester that base some of their restrictions on lot size, include Irvington, Mamaroneck and the City of Rye. These municipalities regulate based on lot size:

- Village of Mamaroneck – one leaf blower at a time on property with an area of 5,000 square feet or less.
- In the City of Rye two or more leaf blowers may not be operated simultaneously except in the R-1 Residence Districts.
- The Village of Irvington states that walk-behind leaf blowers may not be used unless the property that is being cleaned is greater than ½ acre and no more than a total of two handheld or backpack leaf blowers may be used at a time, unless the property that is being cleaned is greater than ½ acre.

Were landscapers consulted when the law was being developed? Yes, the Leaf Blower Task Force met with landscapers on several occasions to discuss this. Prior to setting up the Leaf Blower Task Force, the Supervisor and some community members met with three landscapers with clients in Bedford to open the discussion. With no database of landscapers the Task Force went to great trouble to track down as many as they could, building its own database. Invitations were sent out via email and at least one phone call to everyone on the list. Additionally, a flyer widely distributed to town residents asked them to advise their landscaper of the work of the Task Force. This was also handed to as many landscapers as Task Force members could locate working in town and distributed via suitable locations such as lawn care equipment businesses, libraries, town offices, Neighbors Link, the Community Center and public places.

Meetings and discussions with landscapers were important in the decision of the Leaf Blower Task Force *not* to recommend to the Town Board that the Town license landscapers or require special permits. The Task Force considered such an approach excessive regulation which would result in unnecessary expense to landscapers.

As to landscaper participation on the Task Force, the Supervisor personally invited landscapers at the meeting with them to join the Task Force, but unfortunately none did at such time. The Task Force will recommend to the Town Board that the Board at its July 17, 2018 meeting appoint to the Task Force a landscaper who has expressed an interest in serving.

Why didn't we just use the Leave Leaves Alone initiative to reduce leaf blower use? The LLA initiative began seven years ago and quickly converted many people to leaf mulching. But many more chose to stick to their old methods of blowing leaves. After seven years of education on this topic, it has become clear that we need to help both homeowners and landscapers become more aware of the merits of leaf mulching: these are people who are not seeking out the education. It is a Catch 22. Landscapers will not change until homeowners require them to do so: homeowners defer to their landscapers' recommendation to keep the status quo. They will not change their leaf removal methods unless strongly encouraged to do so via regulation. www.leaveleavesalone.org.

What is the town planning to do to help people who want to obtain good quality electric leaf blowers at reasonable cost or who are interested in different ways of handling their properties? The town and the Leaf Blower Task Force will work together to try to secure discounts on electric equipment from manufacturers and/or distributors. The Task Force is also working with Sustainable Westchester and the American Green Zone Alliance to find discounts for residents looking to purchase electric leaf blowers.

Further, the Task Force will be organizing leaf mulching demonstrations for homeowners and for the commercial landscapers to help them better understand the technique and see how it can help them save time and money during fall clean up.

For more information refer to the American Green Zone Alliance website (www.agza.net), which **educates** individuals, property owners, and landscape maintenance professionals on how to reduce or eliminate the use of gasoline powered maintenance equipment in favor of cordless electric and manual equipment.

Will it cost more if I am not allowed to use a leaf blower on my property? Leaf blower laws have been implemented in more than 170 municipalities around the nation. The Town of Mamaroneck, as an example, has had it in place since 1995. We have not heard of any municipality reporting an increase in costs. Landscapers with whom we have spoken who work in Westchester where legislation has been passed are not changing their rates.
•http://www.irvingtonny.gov/index.aspx?NID=236

Leaf mulching doesn't work. There is a great deal of evidence online and from professional landscapers and homeowners that leaf mulching does work, although it requires some thought and perhaps some adjustments to the equipment used. Plenty of YouTube videos describe its use and we also have two Westchester organizations with websites about the practice: www.leleny.org and www.leaveleavesalone.org. Bedford will be hosting leaf mulching

demonstrations and education sessions to help homeowners and landscapers adopt mulching.

I have too many leaves. If you have so many leaves that when mulched the leaf litter is more than 2 inches on your lawn each week, you should place them around shrubs, on perennial beds, on vegetable garden beds and around the base of trees. It will decompose in place and enrich the soil. Knowledgeable gardeners seek out leaves and claim "there is no such thing as too many leaves."

My oak leaves are too acidic. Oak leaves take longer than most leaves to decompose but when completely decomposed into compost have a neutral pH. If you are concerned about acidification, make sure to use your oak leaves around the base of the oak tree, which needs them to nourish its roots. There are many plants, such as azaleas, rhododendrons and blueberries, that favor acidic soil, so if you are concerned about the acidity of your oak leaves, use them around acid loving plants.

What evidence is there that gas-powered leaf blowers cause pollution? Leaf blowers with two-stroke engines burn an oil and gas mixture that generates an exhaust with high levels of ozone forming chemicals and fine particulate matter (PM2.5) at ground level where they are easily inhaled. The California Air Resources Board (CARB) estimates that operating the best-selling commercial leaf blower for one hour emits smog-forming pollution comparable to driving a 2016 Toyota Camry about 1110 miles, or approximately the distance from Los Angeles to Denver. Further, the CARB estimates that by 2020 the total smog-forming emissions from all small off-road engines will exceed those from passenger cars in southern California. According to the American Green Zone Alliance (AGZA) approximately four ounces of fuel is spilled every time a gas tank on a lawn maintenance machine is filled, amounting to as much as 17 million gallons annually in the United States. This oil and gas mixture seeps into the ground and ultimately into our ground water.

In addition, operating manuals for gas leaf blowers contain warnings about dangerous emissions and exhaust. Image is from a STIHL gas-powered backpack blower manual.

Warning!

As soon as the engine is running, this product generates toxic exhaust fumes containing chemicals, such as unburned hydrocarbons (including benzene) and carbon monoxide, that are known to cause respiratory problems, cancer, birth defects, or other reproductive harm. Some of the gases (e.g. carbon monoxide) may be colorless and odorless. To reduce the risk of serious or fatal injury/illness from inhaling toxic fumes, never run the machine indoors or in poorly ventilated locations. If exhaust fumes become concentrated due to insufficient ventilation, clear obstructions from work area to permit proper ventilation before proceeding and/or take frequent breaks to allow fumes to dissipate before they become concentrated.

Warning!

Inhalation of certain dusts, especially organic dusts such as mold or pollen, can cause susceptible persons to have an allergic or asthmatic reaction. Substantial or repeated inhalation of dust and other airborne contaminants, in particular those with a smaller particle size, may cause respiratory or other illnesses. This includes wood dust, especially from hardwoods, but also from some softwoods such as Western Red Cedar. Control dust at the source where possible. Use good work practices, such as operating the unit so that the wind or operating process directs any dust raised by the power tool away from the operator. Follow the recommendations of EPA/OSHA/NIOSH and occupational and trade associations with respect to dust ("particulate matter"). When the inhalation of dust cannot be substantially controlled, i.e., kept at or near the ambient (background) level, the operator and any bystanders should wear a respirator approved by NIOSH/MSHA for the type of dust encountered.

•https://www.epa.gov/sites/production/files/2015-09/documents/banks.pdf
•https://www.arb.ca.gov/msprog/offroad/sm_en_fs.pdf
•https://www.fairwarning.org/2017/09/leaf-blower/
•https://www.fairwarning.org/wp-content/uploads/2017/09/HSA-Report.pdf
•http://www.edmunds.com/car-reviews/features/emissions-test-car-vs-truck-vs-leafblower.html
•https://www.kcet.org/shows/socal-connected/blowing-concerns
•https://www.agza.net

What health affects are associated with exposure to ground-level ozone and fine particulate matter (PM2.5)?

Ozone and PM2.5 are documented causes and/or contributors to serious health conditions, including heart attack, stroke, congestive heart failure, asthma, chronic obstructive pulmonary disease and cancer. Workers, children, seniors and people with chronic illness are most at risk.
•https://www.epa.gov/ozone-pollution
•https://www.airnow.gov/index.cfm?action=aqibasics.particle
•http://www.lincolntown.org/documentcenter/view/733
•http://icahn.mssm.edu/files/ISMMS/Assets/Departments/Environmental%20Medicine%20and%20Public%20Health/CEHC/CEHC%20Climate%20Change%20Infographic%20FINAL%208.2017
.pdf
•http://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/10-tips-to-protectyourself.html
•https://www.quietcommunities.org/massachusetts-medical-society-leaf-blowers/
•http://www.heart.org (Search for "air pollution and cardiovascular disease")

•https://www.nytimes.com/2018/04/13/well/family/air-pollution-may-pose-serious-risks-to-young-children.html

Is noise from leaf blowers only a nuisance issue? Noise from commercial leaf blowers is in the range of 95-115 decibels at the ear of the operator. These are well above levels deemed safe for workers or people in close proximity. When leaf blowers were first introduced, the noise from them averaged 78 decibels (dB), but measured at a distance of 50 feet away. While more modern leaf blowers are available with ratings of 65 dB or lower at 50 feet, many that are on the market still exceed 70 dB/50 ft. A leaf blower rated at 70 dB at 50 feet may actually generate noise levels over 105 dB at the operator's ears. Not only is this a risk for hearing loss; there are many other health problems associated with noise exposure including agitation and heart disease.
• https://www.dec.ny.gov/chemical/109428.html
•www.osha.gov/dte/grant_materials/fy10/sh-21001-10/Trainee_Worksheets-Ears.pdf
•https://sciforschenonline.org/journals/environmental-toxicological-studies/JETS-1-106.php
•https://www.acsh.org/news/2017/03/21/leaf-blowers-threats-hearing-signal-springs-return-11034
•https://www.cdc.gov/vitalsigns/pdf/2017-02-vitalsigns.pdf
•https://www.nidcd.nih.gov/health/noise-induced-hearing-loss
•https://www.quietcommunities.org/gas-leaf-blower-noise-impact/

These health issues have been noted by the NYS Medical Association to the point that they have asked legislators to seek ways to reduce gas leaf blower use in their communities (http://www.mssnypositionstatements.org/47-2/#90.000**).**

Recent Development – Important Resolution

Medical Society of the State of NY (MSSNY) resolution:

- **RESOLVED, that the Medical Society of the State of New York call upon the New York State Department of Environmental Conservation and the manufacturers of the gas leaf blowers develop guidelines that would dramatically reduce the toxic emissions and noise level of gas leaf blowers; and be it further.**
- **RESOLVED, that the Medical Society of the State of New York also encourage that New York State and other governmental entities promote the use of non-polluting alternatives to gas leaf blowers**
- **RESOLVED, that a copy of this resolution be transmitted to the American Medical Association for consideration at its House of Delegates**

How are plants and soils affected by use of leaf blowers? Leaf blowers can cause damage to plants, especially when used to blow leaves and debris out of garden beds. They can contribute to the spread of plant diseases and invasive plants and can damage soils.
•https://www.soilsalive.com/blog/how-leaf-blowers-destroy-your-topsoil
•https://www.quietcommunities.org/ecosystem-impact-qc/

I've heard that electric blowers don't work. There are many landscapers using electric leaf blowers successfully. While they acknowledge that getting used to charging batteries vs. filling gas tanks takes a change in mindset, they reason that the benefits of electric outweigh the negatives of gas powered equipment.

•http://landscapemanagement.net/battery-boon-breaking-down-the-benefits-of-battery-powered-equipment/
•http://www.eeeequipment.com/is-your-landscaping-company-losing-out-on-bids-time-to-say-goodbye-to-your-gasoline-and-diesel-powered-equipment/
•https://www.jcgrounds.com/blog/3-reasons-to-implement-electric-leaf-blowers
•https://www.newverdant.com/
•http://www.mowgreen.com
•http://organiclawncarerochester.com/

Consumers don't care what machinery is used on their property. As the green movement grows, consumers are looking for ways to adopt more sustainable practices. In 2013, outdoor power equipment manufacturer Husqvarna conducted a survey asking consumers their opinions about commercial landscaping companies:

- 65% said they'd choose a landscaper who used eco-friendly outdoor power equipment over one who didn't.
- 72% said they'd support companies using eco-friendly equipment.
- 57% said they'd pay more for a landscaper who used battery-powered equipment because it's quieter than gas-powered models.

I've heard that batteries have a life span whether you use them or not. This is true but if the batteries are charged when not in use, 40% to 50% twice a year, they will only experience a 2% to 5% capacity loss. This varies based on particular chemistry. The American Green Zone Alliance (AGZA), which has been working in this arena for many years, knows of homeowners going on seven years with their lithium batteries.

Aren't there negatives associated with electric leaf blower use? Electric powered leaf blowers have a far smaller environmental footprint than those powered by gas. A homeowner may choose to use a corded electric blower, which is powerful enough for light summer time use and clearing patios, driveways and decks. There are also a growing range of battery-powered leaf blowers, suitable for homeowners and for professionals. The most recent of these use lithium batteries.

Lithium batteries are also used in laptops, cell phones, cameras, auto, and other applications.

Battery electric leaf blowers have far less impact (noise, emissions, energy carbon footprint, lifecycle footprint) than any gas powered leaf blower. As with electric cars, this is true regardless of chemistry (whether Pb, NiCad, NiMh, or Li-ion) and even if the electricity used to charge the batteries comes from a dirty source like a coal fired power plant.* This is because SOREs (small off-road engines) are very poorly regulated, incredibly inefficient (majority of fuel and pollution is wasted on heat and friction, not work), and pollute directly at the point of use (local air quality,

PM). By contrast, all battery electric tools are incredibly efficient, have very little friction, heat, and vibration, produce half the noise pollution, and zero emissions (ground-level ozone, PM 2.5, PM 10, VOCs, and GHGs) during operation.

- The latest Lithium-ion batteries are much higher density, charge faster, run longer, have even and sustained power output, and are more thermally stable than even a couple years ago. They are intelligently controlled by sophisticated on-board battery management systems and charged optimally and safely by fan-cooled smart chargers.
- Lithium is a far less toxic raw material than lead and cadmium from previous battery generations. Even if a lithium battery were to end up in the landfill, it is far less harmful than older chemistries were.
- As lithium batteries have become pervasive in our cell phones, laptops, cars, and power tools, manufacturers are increasingly offering battery re-collection and recycling. We do have a long way to go to make battery recycling more proactive accessible, and accountable, but when considered cradle-to-grave, there is simply no comparison between the environmental benefits of batteries over the spectrum of poisons and environmental threats of gas equipment.

Source: American Green Zone Alliance (https://www.agza.net).

*Bedford is one of the "green" communities under Community Choice Aggregation, which promotes renewable energy through Renewable Energy Credits. Approximately 80% of the residential electricity customers in NYSEG and Con Edison service area in Bedford are CCA customers.

How can I contact the Task Force and may I join? The task force can be reached at leafblowers@bedfordny.gov and welcomes new members. The mission of the task force is to help Bedford residents and landscapers who work in Bedford understand the new law and to make adjustments in their practices to work successfully within the law.