

ELECTRIC POWERED LEAF BLOWERS

UPDATE
2023

**CORAL
GABLES**®
THE CITY BEAUTIFUL



HISTORY

The City of Coral Gables has discussed noise and environmental pollution concerns related to gas powered landscaping equipment since 2010 in green task force meetings, and at commission level beginning 2016.

Gasoline-powered leaf blowers produce emissions of nitrogen oxides and hydrocarbons, which can form smog. They also emit carbon monoxide, air toxics, and greenhouse gases, and they stir particles into the air, contributing to particle pollution.



Most leaf blowers have a 2-stroke engine that lack a separate lubrication system, therefore the fuel must be mixed with oil. The gas/oil mixture is what makes the 2-cycle leaf blowers very loud.

Through a series of three EPA regulations in 1995, 2000, and 2007, gas-powered leaf-blowers are required to produce 80% less pollution than they were prior to 1995.



According to the CDC, a gas leaf blower produces an average decibel level of 90 and there could be damage to hearing possible after 2 hours of exposure.

According to the United States Environmental Protection Agency (EPA) The level of 70 decibels or lower should prevent hearing loss. A-weighted decibels, abbreviated dBA, or dBa, or dB (a), are an expression of the relative loudness of sounds in air as perceived by the human ear.

COMPARISONS

Advantages of electric leaf blowers

- *Lower decibel levels- Electric models have lower decibels (50 dB-75dB), making them useful for residential properties with noise ordinances.*
- *Reduction of fossil fuel emissions.*

Limitations of electric leaf blowers

- *Limited Portability - Corded electric blowers have limited reach.*
- *Power - Cordless models have less power than corded ones, and both are less powerful than gas-powered units. Portable batteries will only stay charged for one to two hours and are heavy to carry.*

Advantages of gas-powered leaf blowers

- *Portability/Ease of Use - A gas-powered unit is portable and less heavy.*
- *Powerful - Have more power to accomplish heavy-duty cleanup.*

Limitations of gas-powered leaf blowers

- *Noisy - With decibel levels in the 90 range, hearing protection is required.*
- *Fuel - Gas-powered leaf blowers come with environmental and health concerns.*



ELECTRIC LEAF BLOWERS

2

2



GREENSPACE MANAGEMENT PILOT PROGRAM

Purchased year 2023

Battery back pack + blower kits:

- 11-Husqvarna electric blowers model 550iBTX with battery chargers (QC330.1) + battery backpack (BLi950x)
- Total cost of kit = \$1,800

Specifications:

- Air speed 120.79 mph
- Decibels dB/(A)=60dB(A)
- Weight with battery pack (15-20 lbs)

Previously owned electric equipment includes 2 STIHL electric blowers, weed eaters and trimmers.



GREENSPACE MANAGEMENT PILOT PROGRAM



PILOT PROGRAM

Staff comments

- *“Useful in small areas of downtown near cars and pedestrians.”*
- *“Not effective in large parks or medians with large volume of leaf drop.”*
- *“Backpack charger is heavy to carry.”*
- *“Ineffective on tall or wet grass and leaves.”*
- *“Battery life is less than 2 hours per charge.”*

Current city inventory for Community Recreation: 7 electric blower kits

Current city inventory for Greenspace Management: 14 electric blower kits

New resources will be required:

INITIAL BUDGET			
QTY	ITEM	PRICE PER ITEM	TOTAL
21	RAPID CHARGE CONVERTORS	\$1,800	\$37,800
21	REPLACEMENT BATTERIES	\$1,000	\$21,000
BUDGET COST			\$58,800

- *Landscape contractor would require 10 electric blower units and 3 new full-time employees, which will reflect an increase to the current landscape maintenance contract, to be determined.*

Note: one gas blower costs \$600

ACTION FROM OTHER MUNICIPALITIES



Key Biscayne (Passed November 2005) Ban took effect (Feb 25, 2018)

(17) Leaf Blowers. The use or operation of any Leaf Blower unless said machine has a stamp from the manufacturer or testing laboratory certifying a rating of no more than sixty-five (65) decibels. From and after May 24, 2006, the use and operation of any Leaf Blower unless said machine has a stamp from the manufacturer certifying a rating of no more than sixty-five (65) decibels and incorporates the best available technology for the reduction of noise.

Miami Dade County (ordinance adopted 5/3/2022)

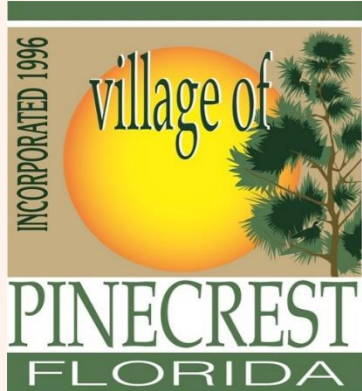
For now, Miami-Dade County's noise ordinance says it's illegal to run a leaf blower before 7 a.m., a cutoff time that also applies to operating lawn mowers, chain saws, chippers and other "noise-producing tools." Section 21-28 of Miami Dade County Code.

Ban 8pm-8am for noisy equipment in residential areas.

This section shall apply to both the incorporated and unincorporated areas. In the unincorporated area, this section shall be enforced by the County, and in the incorporated areas, this section shall be enforced by the municipalities. It is provided, however, that this shall not be construed to limit the County's authority to enforce this section within a municipality that has not adopted its own regulations as provided in paragraph (c) below.



ACTION FROM OTHER MUNICIPALITIES



Pinecrest Ordinance (Jan 2022) Effective Jan 2023

(11) Leaf blowers. The use or operation of any leaf blower unless said machine has a stamp from the manufacturer or testing laboratory certifying a rating of no more than 65 dBA and incorporates the best available technology for the reduction of noise. **NOW BANNED ALL GAS-POWERED LEAF BLOWERS** effective January 2023. **ALL RESIDENTS & Commercial Lawn Service companies will NOT be allowed to use ANY gas-powered leaf blower regardless of decibel level.** In addition, there is a ban on ANY electric leaf blower higher than 65 decibels.

Miami Beach (Passed on Jan 2022).



The use of gas-powered leaf blowers is prohibited within the city. Battery- and electric-powered leaf blowers may be used within the city, consistent with the regulations set forth in section 46-152 of the City Code. Private property owners and landscape maintenance companies are encouraged to operate leaf blowers in a manner that reduces noise generated by the equipment, including, without limitation, by not continuously running equipment and by using equipment that operates at a low decibel range (i.e., 65 dB or less)

Gas Leaf Blower Prohibition | Miami Beach

City of South Miami Adopted on second reading in September , 2023:



Sec. 15D-2.1. - Regulations on the use of gas-powered and electric-powered leaf blowers private property owners and businesses are encouraged to operate electric-powered landscaping equipment, but may use a gas-powered blower, in a manner that reduces noise and pollution generated by the equipment, including, without limitation, by not continuously running equipment, and by using equipment that operates at a low decibel range (i.e., sixty-five (65) dB at fifty (50) feet).

CURRENT NOISE ORDINANCE



RESIDENTIAL ORDINANCE

(10) *Power tools and landscaping equipment use by resident.* The operation of noise-producing lawn mowers, lawn edgers, weed trimmers, blowers, chippers, chainsaws, power tools and other noise-producing tools which are used to maintain the outdoors of a residence:

- a. Between the hours of 8:00 p.m on Sunday, Monday, Tuesday, Wednesday and Thursday and 8:00 a.m. the following day;
- b. Between the hours of 8:00 p.m on Friday and Saturday and 9:00 a.m. the following day.
- c. On holidays, as established by section 1-2.
- d. Permissible hours of use:



Power Tools and Landscaping Equipment Use by Resident		
Monday—Friday	Saturday—Sunday	Holidays
8:00 a.m. to 8:00 p.m.	9:00 a.m. to 8:00 p.m.	Prohibited

CURRENT NOISE ORDINANCE



COMMERCIAL ORDINANCE

(11) *Outdoor maintenance equipment use by commercial entity.* The use of maintenance equipment, by a commercial entity or business, which creates a loud, excessive, unnecessary or unusual noise in connection with the operation of said equipment within 100 feet of any residential area:

- a. Between the hours of 6:00 p.m. on Monday, Tuesday, Wednesday, and Thursday and 8:00 a.m. the following day;
- b. Between the hours of 6:30 p.m. on Friday and 9:00 a.m. on Saturday;
- c. Between the hours of 5:00 p.m. on Saturday and 8:00 a.m. [on] Monday;
- d. On holidays, as established by section 1-2.
- e. Permissible hours of use:



Outdoor Maintenance Equipment Use by Commercial Entity				
Sunday	Monday— Thursday	Friday	Saturday	Holidays
Prohibited	8:00 a.m. to 6:00 p.m.	8:00 a.m. to 6:30 p.m.	9:00 a.m. to 5:00 p.m.	Prohibited

- f. The use of outdoor maintenance equipment on all golf courses and parks located within the City is exempt from the hours of operation restrictions under section 34-169(11).
- g. The use of outdoor maintenance equipment by, or on behalf of, the city of Coral Gables is exempt from the hours of operation restrictions under section 34-169(11).

Commercial maintenance equipment includes, by way of example, noise-producing lawn mowers, lawn edgers, weed trimmers, blowers, chippers, chainsaws, power tools and other noise-producing tools, where that noise is generated by a third-party commercial maintenance company, rather than by the lawful owner or tenant of the premises.