



Eastchester Environmental Committee Resolution 2010-1

Resolution by the Eastchester Environmental Committee for the Limited Use of Power Tools for Yard Work and Gardening

Introduction

This resolution provides a recommendation to the Town of Eastchester for the restriction of the use of power tools for yard work and gardening as well as the supporting background and rationale which was used to develop the recommendation. The following provides a summary of the impacts of leaf blowers, a review of ordinances from other Westchester municipalities and the resulting recommendation of the Eastchester Environmental Committee.

Background Information and Basis for Resolution

Use of Leaf Blowers

Each weekend, about 54 million Americans mow their lawns, using 800 million gallons of gas per year. Most people do not associate air pollution with lawn care. Yet emissions from lawn mowers, snow blowers, chain saws, leaf blowers, and similar outdoor power equipment are a significant source of pollution producing up to 5% of the nation's air pollution and a good deal more in metropolitan areas. Gas powered gardening equipment emit hydrocarbons and nitrogen oxides (contributing to the formation of ground level ozone), particulate matter (damaging to the respiratory system), carbon monoxide (a poisonous gas) and carbon dioxide (contributing to global warming). Ground-level ozone impairs lung function, inhibits plant growth, and is a key ingredient of smog. The health toll of these pollutants includes cancer as well as damage to lungs, heart, the immune system and detoxification system.

Leaf blowers have become a common gardening tool in Eastchester over the past two decades, and have largely replaced rakes for cleaning up leaves and lawn detritus. Unlike rakes, leaf-blowers break leaves into smaller pieces and lift leaves and other small particles off the ground generating dust. While leaf blowers save time and allow for more thorough cleaning of lawns, this tool generates unnecessary noise, pollutants and small airborne particles which migrate to neighboring properties. As explained below, it is clear that use of leaf blowers in suburban areas such as Eastchester, create unnecessary health risks. As a result many municipalities around the Country (including many here in Westchester) have put restrictions on the use of leaf blowers and other lawn equipment.

Air Quality

According to the United States Environmental Protection Agency (EPA), Westchester is in non-attainment for particulate matter ($PM_{2.5}$) and ozone. This means that Westchester has too much fine particulate matter (particles less than 2.5 micrometers) and the precursor chemicals (hydrocarbons and

nitrogen oxides) that create ground level ozone in the air. Particulate matter of this small size is dangerous because it can be inhaled deep into the lungs and cause respiratory problems, heartbeat irregularities and heart attacks. While air borne particulate matter is harmful to all, it is especially dangerous for young children, the elderly and people with existing conditions such as asthma, bronchitis and emphysema. Ozone is a component of smog and is also linked to respiratory illness especially in children and the elderly. ¹ This type of pollution is of particular concern during the summer months when atmospheric conditions allow dangerous amounts of ozone to develop.

The pollutants that cause these problems are all released by gas powered lawn equipment. The EPA completed studies entitled “Nonroad Engine and Vehicle Emission Study” in 1991 and in 1994 which determined that sources from lawn equipment contribute significantly to ozone non-attainment. Using outdated lawn and garden equipment (pre-1997) can account for as much as five percent of the total man-made hydrocarbons that contribute to ozone formation. Reducing emissions from small engines can help to alleviate the formation of ground-level ozone resulting in a decrease of air pollution-related health problems.² Additionally a study was conducted entitled, “Determination Particulate Emission Rates from Leaf Blowers” which provided evidence that particulate matter is suspended in the air with the use of leaf blowers on all surfaces (including asphalt, lawns and concrete) with impacts up to 20 meters (66 feet) from the equipment and up to 2 meters (6.6 feet) in height. ³

In addition to the pollutants of local concern, these engines also produce carbon monoxide, a colorless, odorless and poisonous gas which results from incomplete fuel combustion as well as heavy metals.⁴

Excessive Noise

Noise can impair the health and welfare of residents and impact their quality of life. According to the Mayo Clinic the safe range for noise is less than 70 decibels. There is a risk for hearing loss once noise levels reach 85 decibels and severe injury occurs once levels are at 120 decibels.⁵ Lawn mowers and leaf blowers can range from 85 to 95 decibels⁶; however there are models that run quieter including electric

¹ http://www.epa.gov/air/community/details/yardequip_addl_info.html. June 5th, 2009.

² United States Environmental Protection Agency. Small Engine Emission Standards. EPA420-F-98-025. August 1998.

³ Fitz, Dennis and Acermont, Gary. Determination Particulate Emission Rates from Leaf Blowers. 2006.

⁴ http://www.epa.gov/air/community/details/yardequip_addl_info.html. June 5th, 2009.

⁵ National Institute on Deafness and Other Communication Disorders, 2008, the National Institute for Occupational Safety and Health, 2009, and American Tinnitus Association, 2009.

⁶ The Washington Post “Life on a Large Lot Acres of Turf, Days of Din” Ilene Sternberg Thursday, August 19, 2004; Page H01



models. Many manufacturers test their products and provide decibel information in product specifications.

Emissions

In addition, power tools driven by internal combustion engines contribute to the overall carbon footprint of the Town and whose unmitigated use runs counter to the Town's philosophy, and as a member of ICLEI, for reducing emissions that contribute to Climate Change.

A first-order approximation of green house gas (GHG) emissions from lawn equipment can be simply the carbon dioxide (CO₂) created by burning gasoline. Gasoline produces 19.6 pounds of CO₂ per gallon burned. Compare the amount of gasoline used in a family's lawn equipment to the amount used in cars (assuming that the family used 1,000 gallons/year in their car and 10 gallons/year in their lawn equipment), results in lawn equipment accounting for less than 1% of the GHG emissions of a suburban family. Nevertheless, switching to an electric lawnmower may reduce a family's carbon footprint.

Switching to electric mowers will not totally eliminate pollution; however, emissions from the electric industry are more regulated and are not in your backyard. New York State has a relatively low carbon intensive electric market when compared to other states with close to 40% of generation coming from carbon free sources such as Hydro, Nuclear and Wind.

New Equipment and EPA Standards

Until 1995, lawnmower emissions were unregulated. Older more powerful, less efficient two-cycle engines release 25-30% of their oil and gas unburned into the air. The EPA has finalized a new emission control program to reduce hydrocarbon emissions from small spark-ignition engines by about 35 percent. The new exhaust emissions standards will take effect in 2011 or 2012, depending on the size of the engine. The final rule also includes new standards to reduce evaporative emissions from these fuel systems. These standards will reduce the harmful health effects of ozone and carbon monoxide from these engines. Compared to their unregulated counterparts, EPA estimates that engines complying with the new emission standards will emit on average more than one third less hydrocarbons.

Current Noise Ordinance

In the course of its investigation, the Committee uncovered Local Law 1-2001, which regulates the decibel levels of transient noise and steady noise in the Town of Eastchester. The Committee was unable to find any evidence that Local Law 1-2001 has been enforced. This may be because the law seems to require that the Town have sound measuring equipment that can evaluate decibel levels according to audio frequency. In contrast, the Committee's proposal for a leaf blower ordinance would reduce unnecessary noise in Eastchester without the need for the Town to use sound measuring equipment.



Summary of other Ordinances in Westchester & Results of Implementation

Summary of Ordinances

Many municipalities throughout the Nation and the County have implemented ordinances that restrict the use of lawn power equipment to protect the health and welfare of their residents. It is believed that at least fifteen Westchester municipalities have outright bans on the use of leaf blowers during the summer months, including three of the four municipalities that border the Town of Eastchester (New Rochelle, Yonkers and Scarsdale).

The Committee reviewed six of the many ordinances in effect in Westchester, to provide a basis for this resolution. Ordinances from Bronxville, Dobbs Ferry, Hastings, Larchmont, New Castle, and Yonkers were obtained, and summaries are attached hereto. Four of these communities have summertime bans on leaf blowers. During other times of year leaf blowers as well as other power equipment are restricted to working hours on weekdays with limited hours on weekends. Most of these communities allow for a homeowner exception to the evening restrictions. Additionally, more than one municipality allows for equipment to be used in emergency situations or following a severe storm event.

Results of Implementing Ordinances

Although hard data is difficult to come by from other local municipalities, it is widely known that controlling the times, dates and volumes of use have greatly benefitted those communities. After polling appointed leaders from our area, there was a complete consensus that their ordinances have had vast acceptance and approval by their constituents.

Carol Casazza Herman, Chair, Village of Larchmont, Committee for the Environment stated, *"We do have the acknowledged anecdotal evidence that our community is much quieter during the ban and people really do appreciate that."*

Also from Larchmont an email from Police Chief John G. Poleway to their Environmental Committee on November 16, 2009, stated, *"Thank you for recognizing the efforts of the police department in enforcing the leaf blower ordinance. The patrol officers issued forty-six summonses for this offense, which is a new record high mark for our department. I am pleased we were able to assist in this endeavor."*

Nina Orville, Chair, Dobbs Ferry Mayors Task Force, said, *"Of course it has benefitted our community. Ideally, it makes sense to coordinate this with neighboring municipalities. Lawn care companies do so much of this work and it's tricky for them to have to keep track of the fine distinctions between ordinances in different municipalities. We have had very little need for official enforcement of this here in Dobbs because residents who choose to ask people using leaf blowers outside of the parameters of what's allowed are now empowered to do so."*

Civic and community leaders of Westchester have found their ordinances to be constructive, impactful and beneficial to their citizens and that the quality of life has been improved.

Recommendation

In view of the foregoing, and taking into account the needs of landscapers and homeowners, and in keeping with the regulations from neighboring communities the EEC recommends that the Town of Eastchester impose reasonable restrictions on the use of lawn powertools and leaf blowers specifically, as follows:

- The ordinance should limit the use of power tools with an internal combustion engine used for landscaping and yard maintenance (“equipment”) to the following times:
 - Weekdays: 8 am – 5:30 pm
 - Saturday: 9am – 5 pm
 - Sunday and Holidays: No use allowed
- In addition, use of leaf blowers only should be forbidden between May 15th and September 15th of each year
- Equipment shall not produce noise levels higher than 65dba as measured from a neighbor’s property line
- The following exceptions will apply:
 - Grass may be cut on with an internal combustion engine lawn mower by an **occupant** of the premises on weekdays between the hours of 5:30 p.m. and 8:00 p.m.
 - Uses of snow blowers, chain saws and other domestic tools and equipment are exempted from these limits when used to clear driveways, streets or walkways during and within 48 hours of snowfalls, rainstorms, ice storms, windstorms or similar emergencies.



Appendix

Time and Date Restrictions

Date:

Dates leaf blowers are not allowed to operate

- Larchmont: June 1st – September 30th
October 1st to April 30th Limited hours and days
- Dobbs Ferry: Dec 15th – March 15th and May 1st – Sept 15th
- Bronxville: June 1st – Sept 30th
- Hastings: May 16th – October 14th
- Yonkers: June 1st – September 30th

New Castle does not have date based restrictions

Days and Times:

Allowed hours of operation

- Larchmont: Weekdays: 8 am – 5:30
Saturday: 9am – 6 pm
Sunday and Holidays: 10 am to 5 pm
- New Castle: Weekdays: 8 am – Sundown
Saturday: 9am – Sundown
Sunday and Holidays: 9am – Sundown
- Yonkers: Weekdays: 8 am – 9 pm
Saturday: 9am – 9 pm
Sunday and Holidays: 9am – 9 pm
- Dobbs Ferry: Weekdays: 8 am – 6 pm
Saturday: 10am – 5 pm
Sunday and Holidays: 10am – 5 pm



Hastings: Weekdays: 9 am – 5 pm
 Saturday: 9am – 5 pm
 Sunday and Holidays: 9am – 5 pm

Equipment Covered

Larchmont: Any gardening equipment with an internal combustion engine

New Castle: Domestic tools and equipment and vehicle repair

Yonkers: Noncommercial or nonindustrial power tools used for landscaping and yard maintenance

Dobbs Ferry: Blowers and fans

Bronxville: Gasoline powered blowers

Hastings: Blowers

Noise Limits

New Castle: 45dba

Yonkers: 70dba/85dba for lawn equipment

Dobbs Ferry: 65dba

Exceptions

Larchmont:

Monday through Friday, excluding holidays: between 8:00 a.m. and 5:30 p.m., except grass may be cut with an internal combustion engine lawn mower by an **occupant** of the premises where it is being cut on weekdays between the hours of 5:30 p.m. and 8:00 p.m.

New Castle:

However, uses of snowblowers, chain saws and other domestic tools and equipment are exempted from these limits when they are being used to clear driveways, streets or walkways during and within 24 hours after snowfalls, rainstorms, ice storms, windstorms or similar emergencies.

Dobbs Ferry:

Unless the noise from such blower or fan is muffled and such engine is equipped with a properly functioning muffler or baffling device or effective noise-absorbent material sufficient to deaden such noise.



Except that grass may be cut with an internal combustion engine lawn mower by the occupant of the premises on any day between the hours of 5:30 p.m. and 8:00 p.m.

Exceptions to this subsection:

(a) Golf course operations, municipal and school employees while in the performance of their regular duties beyond 100 feet from the nearest residence.

(b) Utility companies, municipal and school employees or property owners and/or their subcontractors while performing emergency repairs.

Results of Town Survey on Website

Conducted Spring 2008

| Should the Town of Eastchester place some restrictions on the use of leaf blowers? | Answer Text | Votes | % |
|--|-------------|-----------|-----|
| <input type="checkbox"/> | Yes | 400 | 57% |
| <input type="checkbox"/> | No | 301 | 43% |
| | | 701 total | |