11/19/07 ALTERNATE DRAFT LEAF BLOWER ORDINANCE

A new Section 8.16.081 entitled Leaf Blowers shall be added to Chapter 8.16:

8.16.081 Leaf Blowers

8.16.081.1 Statement of purpose. The City Council hereby finds that the reduction of noise and emissions of particulate matter resulting from the use of leaf blowers is a public purpose that protects the public health, welfare and environment of the City of Cambridge and its citizens. The City Council recognizes that a total ban on the use of such equipment would have a severe adverse impact on the ability of owners of significant parcels of land to effectively remove leaves, dust, dirt, grass clippings, cuttings and trimmings from trees, shrubs and other types of litter and debris from streets, sidewalks, parks, playgrounds, large recreational facilities and other open spaces and to clean and maintain such facilities without relaxing restrictions on the use of such equipment for owners of large parcels of land.

8.16.081.2 Use Regulations. The use of leaf blowers shall be regulated as follows:

1. *Definition of leaf blower.* Leaf blowers are defined as portable, handheld or back pack style power equipment that is powered by fuel or electricity and used in any landscape maintenance, construction, property repair, or property maintenance for the purpose of blowing, moving, removing, dispersing or redistributing leaves, dust, dirt, grass clippings, cuttings and trimmings from trees and shrubs or any other type of litter or debris.

2. *Limitations on use.*

    a. The use of leaf blowers is prohibited except between March 15 and June 30 and between September 1 and December 31 in any year. The provisions of this subsection do not apply to the use of leaf blowers by municipal operators and municipal contractors performing leaf blower operations in Mayor Thomas W. Danehy Park, Fresh Pond Reservation, Thomas P. O'Neil, Jr. Municipal Golf Course at Fresh Pond, Cambridge Municipal Cemetery, Old Burial Ground or performing emergency operations and clean-up associated with storms, hurricanes and the like.

    b. The use of leaf blowers is prohibited except between the hours of 7:00 a.m. and 5:00 p.m. Mondays through Fridays and between the hours of 9:00 a.m. and 5:00 p.m. on Saturdays. The provisions of this subsection do not apply to the use of leaf blowers by municipal operators and municipal contractors performing leaf blower operations in Mayor Thomas W. Danehy Park, Fresh Pond Reservation, Thomas P. O'Neil, Jr. Municipal Golf Course at Fresh Pond, Cambridge Municipal Cemetery, Old Burial Ground or performing emergency operations and clean-up associated with storms, hurricanes and the like.

c. Owners of one or more adjoining parcels of land that together comprise a total of one (1) acre or more may be exempted from the provisions of sub-sections (a) and (b) of this section if they submit an operations plan to the City Manager or his designee for review and approval. At a minimum. the operations plan shall: address the owner's efforts to mitigate the impacts of noise and emissions upon citizens and the occupants and owners of nearby property. include an inventory of all leaf blowing equipment owned and to be used by the owner in its operations program. which shall comply with the noise and emission restrictions set forth in this section and regulations promulgated hereunder. and include the owner's plan for educating users of its equipment on the proper use of equipment as well as the need to mitigate impacts upon others. The operations plan shall be reviewed by the City Manager or his designee, who shall ensure that it complies with the applicable provisions of this section and regulations promulgated hereunder. and shall impose any conditions that may be required in order for the owner to comply with the provisions of this section and regulations promulgated hereunder.

d. Leaf blower operations shall not cause leaves, dirt. dust. debris, grass clippings, cuttings or trimmings from trees or shrubs or any other type of litter or debris to be blown or deposited on any adjacent or other parcel of land, lot, or public right-of-way/property other than the parcel, land. or lot upon which the leaf blower is being operated except by municipal employees or municipal contractors during municipal street and sidewalk sweeping and cleaning operations. Litter or debris shall not be blown, swept or raked onto or into an adjacent street or gutter except by municipal employees or municipal contractors during municipal street and sidewalk sweeping and cleaning operations or into catch basins or onto vehicles. persons or pets. Deposits of dirt, dust, leaves, grass clippings, debris. cuttings or trimmings from trees or shrubs shall be removed and disposed of in a sanitary manner which will prevent dispersement by wind, vandalism or similar means.

e. All leaf blowers shall satisfy the emissions standards of the United States Environmental Protection Agency and noise level standards as follows: the sound emitted from any leaf blower shall be rated by the manufacturer to be no greater than 65 decibels or less.

3. *Fees.* A fee for the City to recover all costs connected with emission or sound testing and enforcement of this section may be charged in an amount set by the License Commission and approved by the City Manager.

4. *Regulations.* The License Commission shall have the authority to promulgate regulations to implement any of the provisions of this section.

5. *Enforcement Officials.* In addition to the Police Commissioner, the Commissioner of Inspectional Services Department and the Chairperson of the License Commission as provided in section 8.16.040 of this Chapter, the Commissioner of Public Works shall be authorized enforcement personnel charged with the enforcement of this section pursuant to the provisions of section 8.16.040 of this Chapter.

5. *Severability.* The provisions of this Chapter are severable. If any section, provision or portion of this Chapter is determined to be invalid by a court of competent jurisdiction, the remaining provisions of this Chapter shall continue to be valid.

6. *Effective Date.* The provisions of this Ordinance shall be effective commencing on September 1, 2008.

Lisa Peterson
Commissioner

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TO: Robert W. Healy, City Manager
FROM: Lisa Peterson, Public Works Commissioner
TOPIC: Leaf Blower and Vacuum proposal
DATE: October 29, 2007

At the October 15, 2007 meeting of the City Council, Councillor Davis submitted a communication to the Council with "proposed changes to the pending leaf blower and leaf vacuum amendment to the municipal code." I would like to communicate my comments on this proposal and the impact on City owned open spaces including parks, cemeteries, and the Fresh Pond Golf Course as well as public ways.

- The definition of leaf blower or leaf vacuum is very broad and includes equipment that is critical to adhering to our high maintenance standards. The definition appears to include street and sidewalk sweepers and vacuums, as well as equipment that would restrict our ability to mow and mulch. The definition has expanded from the Leaf Blower Committee definition to include not only backpack or portable leaf blowers, but also the rolling or walk-behind blowers and vacuums that are necessary in heavy leaf season; these larger machines exceed the 65 decibel level limit and are typically used in larger open spaces including the cemeteries, the golf course and at Fresh Pond reservation and Danehy Park.

- In addition:
  - street and sidewalk sweepers and vacuums need to be used year-round on public rights-of-way and at constructions sites in order to keep streets, sidewalks and storm drains (and receiving water bodies) clean;
  - mowers and mulchers are used from April to November; blowers and chippers should be exempted and permitted year-round.

  I recommend that the following types of equipment be excluded from the definition: street and sidewalk sweepers and vacuums, lawn mowers and mulchers, rolling or walk behind blowers, and wood chippers.

- Under the definition of commercial leaf blower or leaf vacuum operators, I recommend that municipal uses specifically be exempted. The City uses maintenance contractors at approximately 50% of parks. If municipal uses are meant to be included in this definition (including contractors who work for the

City), then there will be a very significant impact on maintenance standards and operating costs. See below for a further discussion of cost.

Landscape contractors hired by the City work under the direction and control of the City. The City will work to insure that contractors are responsive to neighbors' and abutters' issues.

- Under limitation of use section (a) – it would be important to expand the dates so that leaf blowers are allowed March 15 –June 30, and between September 1 and December 31th. The rolling or walk-behind blowers and vacuums, mowers, mulchers and chippers are needed year-round in larger open spaces including the cemeteries, the golf course and at Fresh Pond reservation and Danehy Park and during and after emergencies City-wide (e.g. storms, hurricanes and the like).

- Under limitation of use section (b) – Street sweeping and cleaning begins at 8:00 a.m. in the morning. DPW and construction crews begin work at 7:00 a.m. It is recommended that the hours commence at 7:00 a.m.

- Under limitation on use, section (f): the 65 decibel standard for backpack blowers is appropriate. However, rolling or push-behind blowers and vacuums cannot meet this noise standard. While these larger machines do not meet the 65 decibel limit, they are necessary to clean larger open spaces including the cemeteries, the golf course, Fresh Pond reservation and Danehy Park.

Impacts on municipal work:

Street and Sidewalk Sweeping and vacuuming:

Under the very broad definition of leaf blower and leaf vacuum in the current proposal, mechanical street cleaning – including vacuum sweeping of our streets and sidewalks - would be prohibited. Mechanical street sweeping is a very effective program and vacuum sweeping removes sediment from paved surfaces and reduces particulate matter and debris that clogs catch basins and pollutes receiving water bodies. In addition, the use of sidewalk vacuums in Central Square, Harvard Square, Cambridge Street, and Porter Square are essential to keeping sidewalks clear of debris including cigarette butts and litter, and also leaves and other debris that may accumulate under benches, in bus stops and in plaza areas. Street and sidewalk sweepers and vacuums are also important tools at and around construction sites, aiding in keeping the streets and sidewalks clean and in limiting dust. Eliminating the use of street and sidewalk sweepers and vacuums would have a profound impact on the cleanliness of streets, sidewalks and storm drains.

There are high expectations for this department to keep streets, sidewalks and public areas clean and to reduce flooding/puddling in streets by keeping storm drains clean. Blowers and vacuums are effective tools that enable us to fulfill our mission.

Urban Forestry:

Blowers and chippers are used as a tool in emergency response and clean up. This includes clean up associated with storms, hurricanes and the like. The Urban Forestry crews and contractors hired for this purpose (by the city or by private property owners) need to use chippers for debris and leaf blowers to clean up wood chips and sawdust particularly under cars and in hard to reach places.

In addition, chippers are used December 26 through the middle of January for Christmas tree pick up. The trees are chipped and the mulch is then used in natural areas in Cambridge and Boston.

Park and Cemetery Maintenance:

During heavy yard waste season, leaf blowers are the most effective way to move leaves and debris into a pile. The leaf piles can be vacuumed with a leaf vacuum, shredded, bagged and eventually used as compost. If leaf vacuums cannot be used when there is a large amount of debris, leaves will need to be raked onto tarps then put in dump trucks and driven directly to a compost facility (Lexington or Woburn), which would also result in a significant increase in vehicle trips for those trucks. Currently, shredded material, which takes up much less space, can be stored at the DPW yard until our weekly transfer to a compost facility.

There are very high expectations on the department for maintenance of our parks. Without the use of leaf blowers and vacuums during heavy leaf season, it will be extremely difficult to keep up the same standard of maintenance. In November, for example, when many leaves come down at once, it will be a much slower process to rake and remove leaves. Leaves are often wet and slippery and it is important to remove the leaves before the onset of winter, when the ice makes these areas even more slippery. There will be a slower method of leaf removal in this proposal, which will result in the likelihood of an increased amount of leaves remaining on streets and sidewalks for a longer period of time and may affect the negotiability of those public ways.

Worker Injury:

Where and when leaf blowers and vacuums cannot be used, rakes and brooms will have to be substituted or the debris will remain in place. Workers will need to rake repetitively for hours at a time, day in and day out, during leaf litter season. Then leaves, which can be heavy and wet, would be raked on a tarp which would then be loaded into the back of a dump truck. We would expect a higher frequency of repetitive motion and back/muscular injuries as a result.

Presently, approximately 25% of worker related injury at DPW is due to muscle exertion (back, shoulder, and arm) from repetitive motion tasks and lifting heavy objects and both these activities will increase with the use of rakes and brooms. This is commensurate with industry standard. This high rate of injuries due to exertion can reasonably be presumed to increase with the reduction or elimination of leaf blowers and vacuums. A

25% increase in workers' compensation claims would have an estimated cost of $90,000 in DPW over a four year period (not including costs for lost time).

Used properly, leaf blowers and vacuums are important tools for a safer workforce by reducing the amount of excessive lifting, pulling and repetitive motion.

Costs:

There would be a number of additional costs to the City if leaf blowers and vacuums are restricted or banned from city parks and cemeteries. It is difficult to anticipate precise cost increases; however, the following outlines the general areas of increased costs, using conservative estimates, and 2007 costs:

Seasonal work force:
The idea of augmenting our maintenance crews with seasonal employees to aid in the pick up and removal of leaves and other debris has been discussed. This is currently the practice of the department in the fall and spring, even with leaf blowers and vacuums. It will be very important to have a large number of people working on removing leaves in a relatively short period of time. If leaves are on turf for too long, it will kill the turf. Also, accumulated leaves on public streets and sidewalks may become wet, icy or slippery.

Each seasonal employee who is added to the payroll of the department is at a cost of $4,700 for 9 weeks of employment. If 40 workers were added to aid in clean up when leaf blowers and vacuums are not permitted (10 at the cemetery, 10 at the golf course, 20 in park maintenance), this would cost approx. $188,000 (rounded to $190,000). We also need to address the issue of transporting these additional employees and equipment to work sites.

Overtime cost for city crews:
When leaf blowers and vacuums are not permitted. City crews at parks, cemeteries, street cleaning and the Golf Course would need to work additional overtime hours to try to keep up with maintenance responsibilities. Overtime would be necessary to augment leaf clearance efforts if using backpack blowers "in season" (if walk behind blowers were not permitted). Also, more time will be spent removing leaves if vacuums cannot be used. In June-September, additional labor will be necessary to remove debris from hard surfaces (e.g. basketball courts, tennis courts and thousands of linear feet of walkways) and at artificial turf fields.

Assume 8 OT hours per week, 12 weeks, 40 individuals. Average of $25 per hour at time and half. Additional OT costs=$96,000 (rounded to $100,000). This number is a very conservative estimate and the actual costs may well be higher.

Contractual costs:
The City uses contract landscape maintenance to supplement its own workforce at approximately 50% of its parks as well as at Fresh Pond Reservation and Danehy Park. If contractors were not allowed to use leaf blowers or vacuums in municipally owned

parks and were required to use manual methods only. costs will increase. Assuming a modest a 25% cost increase, the contractual costs are as follows:

	Full contract value	25% increase
DPW Park Maintenance Contracts:	$550,000	137,500
Danehy Park:	$205,000	51,250
Fresh Pond Reservation	$205,000	51,250
Additional contract cost only		*$240,000*

Cost summary:
These costs are not exhaustive and do not including additional costs of eliminating mechanical sweeping and vacuuming of streets and sidewalks, which, if included, would increase the total costs substantially.

Seasonal employees:	$190,000 (assumes 10 cemetery, 10 golf course, 20 parks)
Overtime:	$100,000 (exclusive of Fresh Pond)
Contractual Costs:	$240,000
TOTAL:	**$530,000**

If the City proposed ordinance amendments are approved, fully understanding that there is concern about noise, times of use, and exhaust emissions, the DPW will implement the following policy for City employees and landscape maintenance contractors hired by the City:

> Use between 8:00 -5:00 M-S, from March 15 to June 30 and from September 1 through December 31. Leaf blowers will only be used in school yards, after school has started and not during recess times.
>
> All gas-powered blowers must be three years old or less, and must meet current standards as defined by the Environmental Protection Agency.
>
> Only one blower at a time shall be used within parcels less than 10,000 square feet in size, or directly abutting a school in session.
>
> Each operator (City crews and contractors' representatives) will receive training on proper use of leaf blowers and vacuums before the commencement of the season.

The DPW is very committed to being responsive to residents concerns on these matters.

Cc: Richard C. Rossi, Deputy City Manager

Leaf Blower Use – Best Practices

General Courtesy

- Be aware of neighbors, pedestrians and others nearby. Some may have respiratory illness or allergies that could be triggered by flying dust and debris.
- Be aware of surroundings. Do not use in close proximity to children playing, people reading, school groups gathering, or others nearby.
- Do not point blower at people or pets.
- Do not blow toward open windows or doors, and if possible, do not use within 10 feet of windows or doors.
- Do not blow debris onto adjacent property, the street, catch basins, gutters, vehicles, people or pets.
- Abide by time-of-day, day-of-week and seasonal of use restrictions.
- Adjust hours/times of use to accommodate residents, institutions, abutters (within time restrictions).

Sound Reduction

- Use portable leaf blowers rated 65 decibels or lower, as specified by manufacturer.
- Use at lowest possible speed/throttle to accomplish task
- Use longest possible nozzle for equipment.
- Orient nozzle to reduce sound.
- Check equipment regularly for proper operation (i.e. muffler, filters, motor).

Reduction of Dust/Particulate Matter

- Spray dusty areas with water before using blower.
- Use the full nozzle extension so that the air stream can work close to the ground.
- Do not use for construction dust, plaster dust or dry garden topsoil.
- Do not use blower to move large mounds of debris from one location to another.
- Use rakes or brooms to loosen heavier debris.

Environmental Use

- Use equipment that meets current (2006) EPA emissions standards for leaf blowers.
- Leaf blowers should be run at half throttle most of the time. Low throttle speeds not only significantly reduce noise but also provide operator with maximum control.
- Use equipment at lowest power level to accomplish job.
- Learn to control air velocity to lift leaves without lifting dust.
- Use rakes or brooms to loosen heavier debris.

Worker Safety

- Leaf blower operators will be provided with ear protection and will be offered eye protection and face masks.

Operator Training

- Provide training in proper use to all employees.
- Observe time of use restrictions (months/days/hours).
- Limit use of leaf blowers to no more than one within a lot of 10,000 square feet or smaller.
- Use rakes and brooms to supplement cleanup and to loosen debris from corners and edges.
- Develop/provide brochure on proper use - post on website, provide in workplace, make print versions available to public (e.g. English, Spanish, Portuguese, Haitian Creole).