

# **TORONTO** STAFF REPORT

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October 16, 2001

To: Board of Health  
From: Dr. Sheela V. Basrur, Medical Officer of Health  
Subject: Harmonization of the Noise By-Law

Purpose:

To provide comments to the Planning and Transportation Committee regarding the draft harmonized Noise By-Law.

Financial Implications and Impact Statement:

There are no financial implications arising directly from this report. The Commissioner of Urban Development Services may report separately on staffing models and resources required to enforce the new harmonized Noise By-Law.

Recommendations:

It is recommended that the Board of Health recommend to the Planning and Transportation Committee that:

- (1) The Planning and Transportation Committee give consideration to strengthening the provisions of the harmonized Noise By-Law pertaining to the use of a device that blows or vacuums leaves, grass clippings or debris, so that the use is restricted:
  - (a) at all times in Quiet Zones;
  - (b) at all time on residential properties except during the months of October and November for leaf removal, and
  - (c) between 6:00 p.m. and 8:00 a.m. on weekdays and at all times on Saturday and Sunday on non-residential properties;
- (2) The Planning and Transportation Committee give consideration to strengthening the provisions of the harmonized Noise By-Law pertaining to air conditioning unit noise to reflect the standards in effect under the former City of Toronto Noise By-Law; and

- (3) The appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Background:

The proposed draft Noise By-Law is part of the programme to harmonize the by-laws of the six former municipalities that now comprise the City of Toronto.

The Planning and Transportation Committee, at its meeting on September 11, 2001, considered the draft by-law, which, among other things, prohibits noise resulting from the use of leafblowers in a Quiet Zone at all times and in a Residential Area between 7:00 p.m. and 9:00 a.m. and which recommends a limit on sound levels for residential air conditioners as set by the provincial Ministry of the Environment.

The Committee also had before it a report dated August 16, 2001, from the Commissioner, Urban Development Services which stated that it was not recommending a specific sound level limit for leaf blowers or other gardening equipment, as such a limit is unenforceable. The same report also noted that noise measurements of residential air conditioners would be taken in accordance with Ministry of the Environment guidelines.

The Planning and Transportation Committee forwarded the report (August 16, 2001) from the Commissioner of Urban Development Services and the communication (July 19, 2001) from the Secretary, Board of Health, to the Community Councils and the Board of Health for their consideration and comment back to the Planning and Transportation Committee.

Comments:

The provisions of the proposed harmonized Noise By-Law have been reviewed. The provisions are for the most part consistent with protecting the health of Toronto residents. There are two areas of concern, however. The provisions regarding devices that blow or vacuums leaves, grass clippings or debris (leaf blowers) and air conditioning units should be strengthened to better protect public health.

(a) Leaf Blowers

At its meeting on May 1, 2000, the Board of Health adopted a report on the Health Effects of Noise dated March 23, 2000. The report concluded that noise is an important health issue that affects more than hearing. The scientific research demonstrates that health effects occur at noise levels below those that impair hearing. Some of these health effects include increased risk for cardiovascular disease, and negative effects on sleep, communication, performance and behaviour, reading and memory acquisition and mental health.

At its meeting on July 16, 2001, the Board of Health adopted a report from the Medical Officer of Health on "Leaf Blowers and Other Lawn/Garden Equipment: Noise, Air Pollution and Regulation" dated July 3, 2001. The report concluded that leaf blowers contribute to community noise and promote hearing loss among equipment operators and annoyance among

residents. The report suggested that public input on the report should be obtained at Community Councils at the same time as public consultation on the draft harmonized Noise By-Law. At the time of writing this report, the Community Councils have not yet met to consider the Planning and Transportation Committee's report on the harmonized Noise By-Law (Community Councils are scheduled to meet on October 23 and 24, 2001).

Based on the health impacts analysis in the report, the Board of Health adopted the following recommendations at its July 16 meeting:

- “(1) The Planning and Transportation Committee be requested, during its deliberations on the draft harmonized Noise By-Law, to recommend that the operation of a device that blows or vacuums leaves, grass clippings or debris be prohibited:
  - (a) at all times in Quiet Zones and on residential properties; and
  - (b) between 6:00 p.m. and 8:00 a.m. on weekdays, and at all times on Saturday and Sunday on non-residential properties.”

The proposed harmonized Noise By-Law provides that the operation of a power device that blows or vacuums leaves, grass cuttings, debris or other similar material is prohibited in Quiet Zones at all times, and in residential areas between 7:00 p.m. and 9:00 a.m. The recommendation was made in a report dated August 16, 2001, by the Planning and Transportation Committee against adopting a sound level limit for leaf blowers similar to that used by the former City of Toronto because it would be unenforceable. Toronto Public Health concurs that restricting leaf blower noise on the basis on sound levels would be difficult to enforce and that any new restriction should be based on permissible times of operation.

The provisions regarding leaf blowers under the harmonized Noise By-Law give the City of Toronto an opportunity to make significant progress on eliminating excessive, unnecessary urban noise at its source and of improving the soundscape of Toronto. The Board of Health's proposed restriction on leaf blower use in residential areas (set out above) can be regarded as both protective of health and enforceable in that it does not rely on sound level limits. Most residential properties in Toronto are small and closely set. There are effective, affordable, quiet alternative tools available to clean leaves and debris from these properties. These alternative methods also protect residential neighbourhoods as “preserves” of quiet in an increasingly noisy urban environment. The additional benefit of restricting leaf blower use in residential neighbourhoods is reduced air pollution.

Some municipalities that have restricted the use of leaf blowers make a distinction between electric and gas-powered units. For example, the City of Vancouver voted in July to amend its Noise By-Law to prohibit the use of gas-powered leaf blowers citywide within 50 metres of any residential premises, except for the appropriate use during October through January. It also voted, effective February 2, 2004, that the Noise By-Law be amended to prohibit the use of gas-powered leaf blowers throughout the City of Vancouver at all times. The Vancouver by-law places no restrictions on electric leaf blowers.

Toronto Public Health research suggests that the harmonized Noise By-Law does not need to distinguish between electric and gas-powered leaf blowers. In the June 8, 2001 report on “Leaf Blowers and Other Lawn/Garden Equipment: Noise, Air Pollution and Regulation,” the Medical Officer of Health reported that the noise emitted by electric leaf blowers is only marginally less than that emitted by gas-powered blowers (the quietest electric model, tested by the California Air Resource Board in 2000, measured 63 decibels; the quietest gas model, 62-65 decibels). Whether gas or electric, leaf blowers emit both high intensity and high frequency sound that is not only more intense than the ambient sound levels, but also markedly different. Because of the similarity in noise levels and characteristics, it is advisable that there not be a distinction drawn between gas and electric-powered leaf blowers. However, it may be appropriate to give consideration to restrictions similar to those adopted by the City of Vancouver, where leaf blower use is still permitted between the months October to January for clearing fallen leaves and debris. In the case of Toronto, it may be reasonable to permit leaf blower use during October and November when leaves are falling.

(b) Air Conditioning Units

The report dated March 23, 2000 on the Health Effects of Noise adopted at the Board of Health meeting on May 1, 2000 noted that the Noise By-Laws in the former municipalities attempt to address the localized nature of particular problems in the community. It noted as well that, in the former Toronto, there are more stringent rules in place to govern Heating Ventilation and Air Conditioning systems and other equipment noises due to the close proximity of residences and other conflicting land uses.

The report also noted that noise has been reported to lessen the quality and duration of sleep. Susceptible persons may be affected by noise occurring during sleep with night noise being a significant problem for night workers, mothers with babies, elderly persons, persons who are especially vulnerable to physical or mental disorders and other individuals who experience sleeping difficulty. Nocturnal noise has been indicated as a health risk because of the disturbance to the distribution of sleep stages resulting in direct immunosuppressive effects. These findings are of particular relevance to air conditioning units because, especially in urban areas, and especially during the summer months, they run both night and day and are the source of many public complaints.

The proposed harmonized by-law proposes a standard for the amalgamated city based on the provincial guideline set out in Publication NPC-216 “Residential Air Conditioning Devices.” This is a lower standard than is presently in effect in the former City of Toronto. The proposed standard permits air conditioning units to be five decibels louder than ambient levels; the current Toronto by-law permits units to be only two decibels louder. Since sound levels are logarithmic, a small increase in decibels represents a large increase in sound energy. A difference of three decibels is significant. As noted above, it is the settlement patterns of the former City of Toronto that gave rise to the current standards, which, for this reason, appear to be the most appropriate. Maintaining the current City of Toronto standard will help protect the health of residents in the densely-settled old City of Toronto and other parts of the new City undergoing urban intensification. Maintaining the existing standard will ensure consistency with policies to eliminate noise at its source and improve the overall soundscape of Toronto.

Conclusions:

Noise in the urban environment is an important health issue. Overall, the harmonized Noise By-Law successfully addresses the importance of protecting Toronto residents from the health effects of excessive noise. However, the harmonized Noise By-Law provisions regarding leaf blowers and air conditioning units should be strengthened to maintain and improve the soundscape of Toronto and reduce human exposures to excessive noise. Regarding leaf blowers, further consideration should be given to health protective recommendations that restrict leaf blower use at all times in Quiet Zones, at all times except during October and November on residential properties, and between 6:00 p.m. and 8:00 a.m. on weekdays and at all times on Saturday and Sunday on non-residential properties. Regarding air conditioning units, the Board of Health and Planning and Transportation Committee should give consideration to preserving the standards of the current Noise By-Law for the former City of Toronto.

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