

Peninsula Community Council
April 16, 2012

TO: Chair and Members of Peninsula Community Council

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SUBMITTED BY:

Brad Anguish, Director, Community and Recreation Services

DATE: March 12, 2012

SUBJECT: Land Use By-law Regulation of Heat Pumps

INFORMATION REPORT

ORIGIN

October 3, 2011 motion of Peninsula Community Council:

“MOVED by Councillor Uteck, seconded by Councillor Sloane that Peninsula Community Council request a staff report to review the issue of regulating heat pumps in the Land Use By-Law. MOTION PUT AND PASSED.”

BACKGROUND

Rising energy costs have led to an increase in the installation of heat pumps for residential properties. A heat pump is usually located outside a dwelling where its connection to heating and ventilation systems is most direct.

Heat pumps can generate noise and a 2007 Canadian Mortgage and Housing Corporation (CMHC) publication, “Study of the Noise Generated by Heat Pumps in Residential Areas” outlines that municipalities in Quebec were receiving an increasing number of noise complaints, particularly during the summer months. The report outlined that most heat pumps can be considered to be noisy with the exception of higher end and newer models. The noise levels produced vary depending on the power of the pumps, their technology, when they were manufactured, their degree of wear and tear, and how they are situated on a property.

This report concluded that placing the equipment near neighbouring windows or reflecting surfaces such as a wall or hard-packed soil, which can aggravate the noise situation, should be avoided. It also stated that, regardless of the particular situation, it is always possible to install a noise attenuation device, such as a muffling device, around the pump.

DISCUSSION

The Halifax Peninsula Land Use By-Law, similar to HRM's other land use by-laws, does not specifically address heat pumps relative to their situation on residential properties. They are not captured by the definition of "accessory structure" and, therefore, on their own, are not regulated by the document. If the Municipality intends to regulate the placement of heat pumps, specific regulations pertaining to them would need to be identified in the Land Use By-law.

A cursory review of Canadian cities identified that some jurisdictions regulate heat pumps through a noise by-law. The standard, acceptable noise range appears to be under 45 to 50 decibels from the point of reception. The City of Nanaimo, BC, however, regulates heat pumps and central air conditioning units in their Land Use By-Law. These units must be located to the rear of a principal building and not be closer than 4.5m from the side lot lines or closer than 3m from the rear property line.

Whether heat pumps are regulated through a land use by-law or a noise by-law, each has its own merits. A land use by-law controls land use and building setbacks from property lines. An amendment to the Peninsula Land Use By-law would be required to regulate the location of new heat pump installations. To provide some mitigation against potential noise effects, the Land Use By-law could stipulate that heat pumps be located in rear yards. Such a requirement, however, may interfere with best installation practices to ensure the proper functioning of the unit and such a regulation could not provide certainty as to sound dampening. This may also prove to be counter to community objectives which aim to see buildings become more energy efficient.

A noise by-law controls when various types of noise may or may not be permitted and under what circumstances. The HRM Noise By-law (By-law N-200) provides that, "No person shall engage in any activity that unreasonably disturbs or tends to disturb the peace and tranquillity of a neighbourhood." By-law amendments are not necessary to investigate and enforce a noisy heat pump through the Noise By-law. As it is currently administered, the By-law responds to subjective complaints from citizens that a particular noise is offending. This does not require the use of specialized equipment to measure noise levels as there are no objective thresholds specified in the Noise By-law.

Conclusion

Should Council choose to regulate the siting of heat pumps through the Land Use By-law, any such amendment would only address new heat pump installations. Existing heat pumps would become non-conforming and, as such, be permitted to remain in their current locations.

In consideration of the effects and limitations of regulating heat pumps in the Land Use By-law, staff suggest that investigation and enforcement of individual complaints through the Noise By-law is the most appropriate means by which to address noise concerns. Should Council wish to amend the Noise By-law so that it may be administered on a more objective basis through some quantitative means, the matter would require the approval of Regional Council.

BUDGET IMPLICATIONS

None.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

COMMUNITY ENGAGEMENT

None.

ATTACHMENTS

None.

A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/cc.html> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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