**COMMITTEE OF THE WHOLE – MAY 5, 2008**

## IMPLEMENTATION OF LIFE SAVING STATIONS IN CITY STORM WATER MANAGEMENT FACILITIES

### Recommendations

The Commissioner of Engineering and Public Works and the Commissioner of Community Services, in consultation with the City Fire Chief and the Director of Legal Services recommend:

1. That the cost associated with the supply, placement and regular maintenance of Life Saving Stations in existing assumed storm water management facilities in the City be referred to the 2009 budget deliberations;

2. That staff be directed to undertake the necessary preliminary preparatory work associated with equipping storm water management facilities with Life Saving Stations in 2008; and

3. That the City's design and development standards be amended to include the requirement for the installation of Life Saving Stations in all new storm water management facilities, following budget approval of the program.

### Economic Impact

The supply and installation of each Life Saving Station (LSS) is estimated to cost about $400. The City currently owns and operates a total of 102 storm water management facilities with permanent pools of water. Ultimately with further urban expansion, it is expected that the City will own and operate over 200 facilities. If each existing storm water management facility in the City was equipped with LSS, it would cost about $100,000 assuming at least two stations per facility. Accordingly, given the cost associated with this initiative, the installation of the LSS should be phased in over a period of five years.

The ring buoy and connecting rope will no doubt be the target of theft and vandalism. Accordingly, additional annual operating funds in the amount of $15,000 will be necessary to provide for the replacement of life saving stations and related components. In addition, based on advise from the City's insurance provider, it is recommended that each LSS be inspected once every 2 or 3 days and that detailed inspection records be kept to protect the City from any liability in the event an incident occurs and the LSS is missing or damaged. With over 100 existing storm water management facilities in the City's inventory, additional staff resources and equipment (estimated at $80,000 per year) will be required to carry out the necessary regular inspections of the LSS.

Given the fiscal impacts associated with the supply, placement and regular maintenance of LSS in existing assumed storm water management facilities, it is recommended that the full implementation of this initiative be referred to the 2009 budget deliberations.

The installation of LSS in new storm water management facilities could be made the responsibility of the developer through amendments to the City's development standards and the addition of specific provisions in the subdivision agreement.

### Communications Plan

There will be an appropriate public communications plan developed to support both the installation of the LSS and the "adopt a pond" program, if pursued.

## Purpose

Council, at it meeting on March 31, 2008 directed:

1. *"That the City of Vaughan approve of the recommendations contained herein as to the introduction of "life saving stations" in storm water management facilities throughout the City of Vaughan;*

2. *Staff be directed to finalize an implementation, operational, and financial plan to equip each storm water management facility in the City with life saving stations, and report back to a future Committee of the Whole meeting in the next 30 days; and*

3. *That the City of Vaughan Council approve of the proposal to amend the "adopt a park" program to provide for "adopt a pond" for all existing ponds."*

This report has been prepared in response to this direction.

## Background – Analysis and Options

On March 31, 2008, Council approved the introduction of Life Saving Stations (LSS) in storm water management facilities throughout the City. According to one standard, a basic LSS includes the following components:

- A 3.0 metre (10 foot) high galvanized steel or 4" x 4" wood stand imbedded in a concrete foundation;
- A 20" diameter ring bouy with 15 metres (50 feet) of 12mm (½ inch) nylon rope; and
- Appropriate warning signs with international symbols.

To ensure quick access in the case of an emergency, the LSS should be placed about 200 metres apart around the wetted perimeter of a storm water management facility and above the high water level.

Staff estimate that the cost to supply and place each LSS will be about $400. The City currently owns a total of 102 storm water management facilities with permanent pools of water. Of this total, 52 are assumed, while 50 are either existing and un-assumed or under construction. Ultimately with further urban expansion, it is expected that the City will own and operate over 200 facilities.

Based on the City's storm water management facility inventory, it is estimated that the average size of the existing facilities is about 2.40 hectares with a wetted perimeter of about 350 metres. Accordingly, an average storm water management facility would require at least two LSS based on a 200 metre spacing. At a cost of $400 per station, it would cost about $800 to equip an average size storm water management facility with LSS. In smaller storm water management facilities, a minimum of two LSS should be provided.

### City Liability

Staff contacted the City's insurer to ascertain whether there would be added liability associated with the installation of LSS in all City storm water management facilities. The City's insurer recommended that the LSS be inspected at least once every 2 to 3 days and that detailed inspection records are kept by the City. In the event there are damaged or missing components of the LSS, they should be repaired or replaced within 24 hours. To undertake this level of regular inspection, additional staff resources and equipment will be required.

In addition, the insurer had no concerns with staging the installation of the LSS over a period of time so long as a formal phasing plan was in place.

Regular Maintenance, Inspection and Replacement

The ring buoys, rope and signage will need regular maintenance and life-cycle replacement, which is estimated will cost about $15,000 annually.

Life Saving Station Inspection Database

A comprehensive inventory and inspection database will need to be developed to support the LSS program. This database will be developed and maintained by staff.

By-law Requirements

By-law 195-2000 is currently in effect thereby enabling the City with the ability to impose fines for misuse or vandalism of the LSS located in City storm water management facilities.

Implementation Strategy

Equipping each of the existing 102 storm water management facilities in the City with LSS is expected to cost about $100,000. Given the fiscal impacts associated with implementing the full program in 2008, it is recommended that this initiative together with a five year implementation plan be referred to the 2009 budget deliberations.

To advance the LSS program in 2008, staff will carry out the necessary on-site investigations and GPS assessment (including standardized identification protocol for each station) to establish the number and location of the LSS in each storm water management facility. In addition, an inventory and identification system would be developed for all the stations to facilitate the regular inspection and maintenance activities.

Subject to budget approval, a contractor could be retained in the spring of 2009 to supply and install the LSS in each storm water management facility based on an approved phased implementation plan.

Future Storm Water Management Ponds

The requirement to supply and install LSS in new storm water management facilities will be incorporated into the City engineering design standards and criteria. In addition, a specific provision will be added to the subdivision agreement requiring the developer to supply and install the LSS prior to the issuance of the completion approval for the subdivision.

Adopt-A-Pond Program

The Safe City Committee recommended that staff consider implementing an Adopt-a-Pond program in the City and requested staff to contact other neighbouring municipalities with similar programs in place to gather relevant details.

The City of Brampton is in the process of developing a program for Adopt-a-Park; however their program will not include an Adopt-a-Pond option. In discussions with the Director of Parks for the

City of Brampton, staff has been informed that they have developed safety stations for emergencies and installed signage to deter the public from getting too close to the ponds. Upon further research we concluded that there are no other Adopt-a-Pond programs in effect.

The City's current Adopt-a-Park program encourages the community to participate in litter clean-up, tree planting and flower planting. There is a possibility of including a storm water management facility as a component of the Adopt-a-Park program where the facility abuts a park. It should be noted that the landscaping around a storm water management facility encourages a natural environment of plantings and wildlife. Accordingly, a monetary contribution rather than hands on participation may be a better option.

**Relationship to Vaughan Vision 2020**

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of this report will assist in:

- The pursuit of excellence in service delivery;
- Ensuring and enhancing community safety, health and wellness; and
- The demonstration of leadership and promotion of effective governance.

This report is therefore consistent with the priorities previously set by Council.

**Regional Implications**

There will be no Regional implications resulting from the adoption of this report.

**Conclusion**

Equipping each of the existing 102 storm water management facilities in the City with Life Saving Stations is expected to cost approximately $100,000. In addition, extra staff resources and equipment will be required to maintain and inspect the stations on a regular basis, at least once every 2 to 3 days. Given the significant long term fiscal impact of this initiative, it is recommended that funding for the Life Saving Stations be referred to the 2009 Budget deliberations. To advance this new initiative in 2008, staff will undertake the necessary preparatory work including site location, data base development and tender preparation.

It may be appropriate to include storm water management facilities as a component of the Adopt-a-Park program where a facility abuts a park. However, a monetary contribution rather than hands on participation may be a better option.

**Attachments**

There are no attachments to this report.

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Respectfully submitted,

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