



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	October 31, 2016
SUBJECT/REPORT NO:	Central Composting Facility Odour Mitigation Measures (PW16095) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Joel McCormick 905-546-2424, Extension 5601
SUBMITTED BY:	Betty Matthews-Malone, P.Eng. Director of Operations Public Works Department
SIGNATURE:	

Council Direction:

At the Public Works Committee meeting held on September 8th, 2016 the committee approved the following motion:

- a) That staff be directed to investigate odour complaints with the Central Composting Facility located near the Crown Point neighbourhood and report back to the Public Works Committee with a cost estimate for addressing the concerns and a plan to expedite improving the odour issue.

Information:

The City of Hamilton's Central Composting Facility (CCF) has been operating since June of 2006 and is an important contributor to overall waste diversion from the Glanbrook Landfill. The CCF utilizes an aerobic in-vessel technology that processes Source Separated Organic (SSO) and Leaf and Yard (L&Y) waste collected from the curbside Green Bin program into an environmentally beneficial soil amendment.

Since the construction of the CCF, staff and the facility operator have continually invested and upgraded the CCF to maintain a state-of-the-art facility. A detailed summary of the upgrades and improvements specifically related to facility odour management are outlined in Public Works Report PW16064 - Central Composting Facility Odour Management.

At the September 8th, 2016 Public Works Committee meeting, City staff were directed to investigate possible odour mitigation measures for the CCF operations, including cost estimates attributed to these solutions. Staff have developed odour mitigation measures that are categorised into short and long term options.

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The following are short term options that will be investigated and implemented, within the next one (1) to three (3) months:

- Re-evaluate CCF operations and modify, where necessary, the physical processes and procedures to ensure the CCF is operating at maximum efficiency. This work will be completed in-house at no cost;
- Engage an odour consultant to investigate CCF operations which will include an odour assessment and odour impact re-assessment of the operations. Estimated cost for this service is approximately \$25,000 - \$35,000; and,
- Installation of an odour neutralizing system at the CCF to help neutralize possible fugitive odour emissions. Locations for an odour neutralizing system are as follows:
 - Within the biofilter stack
 - The perimeter of the curing building
 - Fence line system

Estimated cost for the installation of the above items is approximately \$100,000. Any operating costs resulting from the implementation of the short term solutions will be absorbed into the 2016/2017 operating budget. If required, staff will include additional operating cost in the 2018 operating budget cycle.

The following are potential long term solutions that staff could investigate for implementation contingent upon the outcome of the consultant investigation and recommendations:

- Installation of an additional fan within the odour management system which may provide the ability to increase the amount of fresh air entering the odour management system;
- Design and construction of a second biofilter dedicated to managing potential odours developed in the curing building;
- Modifications to the existing odour management system including biofilter exhaust stack; and,
- Investigate new or emerging technologies.

The potential long term solutions listed above are complex and would require substantial lead time as well as permits and approvals. At this time, it is difficult to provide an estimated cost for potential long term solutions. Once potential long term solutions are investigated and a viable solution(s) is determined, staff will outline requirements in future budget submissions.

The Operations Division is currently upgrading the CCF in order to comply with newly implemented regulatory guidelines (PW16049 – Central Composting Facility Capital Improvements). This work is being funded from Project IDs 5121349002 and 5121449002. Odour mitigation was included in the original scope and the short term improvements will be funded from these Project IDs.

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