



City of  
**Peterborough**

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**To:** Members of the General Committee

**From:** Cynthia Fletcher,  
Commissioner of Infrastructure and Planning Services

**Meeting Date:** September 9, 2019

**Subject:** Report IPSES19-010  
Peterborough Organics Project and the Low Carbon  
Economy Fund Application Results

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## **Purpose**

A report to authorize the development of a city-wide Source Separated Organics (SSO) collection system and processing facility, establish the associated capital budget, enter into a non-standard procurement to secure the compost processing system and execute a transfer payment agreement for the Low Carbon Economy Fund grant funding for the project.

## **Recommendations**

That Council approve the recommendations outlined in Report IPSES19-010 dated September 9, 2019, of the Commissioner of Infrastructure and Planning Services, as follows:

- a) That the Mayor and Clerk be authorized to execute the Low Carbon Economy Fund – Partnership Stream Transfer Payment Agreement and any amendments between Her Majesty the Queen in Right of Canada as represented by the Minister of the Environment and Climate Change Canada and the Corporation of the City of Peterborough;
- b) That a \$15,300,000 Capital Budget be established for the Peterborough Organics Project funded as follows:

- (i) That the \$4,000,000 Construction and Transfer of Leaf and Yard Waste Compost Facility (2019 Capital Budget #5-21-02) and the \$20,000 SSO Study Project (established through delegated authority and reported through Quarterly Report CLSFS18-036, dated August 27, 2018) be merged and renamed the Peterborough Organics Project;
  - (ii) That \$5,169,414 be pre-committed with \$1,700,000 million in each of 2021 and 2022 and \$1,769,414 in 2023; and
  - (iii) That the \$6,110,586 Low Carbon Economy Fund (LCEF) federal grant be applied to the project.
- c) That the City proceed with a non-standard procurement for the design and supply of GORE™ compost processing system from Sustainable Generation for an estimated amount of \$2,400,000.
- d) That Administrative Staff Committee be delegated the authority to approve the award of the non-standard procurement process for the GORE™ compost processing system provided costs fall within the approved capital budget.

## **Budget and Financial Implications**

It is estimated that full implementation of an SSO collection and Leaf and Yard Waste (LYW) processing facility will cost in the order of \$15.3 million.

The City's receipt of the LCEF funding means that \$6,110,586 of the \$15.3 million costs will come from the federal government, pending execution of the funding agreement.

A pre-commitment of the remaining estimated \$5,169,414 is required to demonstrate the City's commitment to funding the municipal share of the project costs. These budget amounts and funding sources will be further refined through future budget approval processes. Funding sources for the municipal share may include development charges, tax supported debt, user fee supported debt and waste management reserve.

Staff have estimated the total cost of design, supply, installation, commissioning and training of the GORE™ proprietary compost processing system at \$2,400,000 plus HST. Pending Council approval of the Capital Budget for the Peterborough Organics Project the total estimated requirement, net of applicable HST rebates of \$312,000 can be accommodated within the uncommitted portion of the \$15.3 million budget.

## Background

Council, at its meeting of November 14, 2017 through Report USDIR17-013, endorsed staff developing a program for the City-wide collection of Source Separated Organics (SSO) including items such as the provision of green bins, the procurement of collection trucks and the public education and advertisement campaign necessary to the success of such a program. At that time the City was looking to explore a Private/Public Partnership with Triland Excavation (Triland) with respect to the provision of organic processing capacity. Staff applied on November 9, 2017 to the provincial Municipal Green House Gas (GHG) Challenge Fund to support the collection and processing of the City's Leaf and Yard Waste (LYW) and SSO material. On February 15, 2018 the City was successful in securing almost \$7.5 million in grant funds, executing a transfer payment agreement with the provincial government. However, after the provincial election in October 2018 the Cap and Trade program was cancelled, and the funding revoked. The province did provide funds to cover the cost of consulting fees incurred and the winding down of the project.

With the funding withdrawn and the uncertainty of the province's stance on the banning of organics from the landfill, Triland withdrew from the project and the City refocused its efforts on constructing a LYW only facility at the Peterborough Landfill site.

### Low Carbon Economy Fund (LCEF) – Partnership Stream Application

Late in 2018, a new \$50 million federal grant fund for projects which directly reduce GHG emissions was opened to municipalities with a population of less than 100,000, aboriginal communities, not-for-profits and small to medium sized businesses. An application to the LCEF – Partnership Stream was submitted on March 8, 2019. In the summer of 2019, the City received federal approval-in-principle of funding for the Peterborough Organics Project for 40% of eligible project costs up to a maximum of \$6,110,586. The project submitted included the following:

- The procurement and distribution of residential green bins and kitchen catchers;
- A comprehensive public information and communication campaign;
- Procurement of the necessary vehicles to effect the collection of SSO; and
- Permitting, Design, approval and implementation of an organics processing facility to process SSO and LYW materials.

Environment and Climate Change Canada requires the funding agreement to be signed by all parties within 45 business days of the August 8, 2019 date of receiving the funding agreement.

Grant requirements include duty to consult, monitoring, reporting and verification, including progress reports on results achieved at specific intervals that will include, at a minimum, details about project implementation and associated GHG reductions. The City will retain a consulting firm to monitor the GHG emission reduction results.

### **Development of a City-wide Program for the Collection and Processing of Source Separated Organics**

In 2014, the City hired Stantec Consulting Ltd. to formulate an Organics Collection and Processing Strategy for the City of Peterborough and Surrounding Area. This work was undertaken to assess the needs of the City with respect to processing capacity, detailed projections for the amount of organic waste requiring management including possible additional materials that could be managed from neighbouring municipalities.

The study also reviewed a range of possible ownership models, operating, siting and financing options for the City for a new organic waste processing facility.

In order to determine the impact that a City-wide organic waste collection program would have on the City's existing waste collection system, a collection modelling exercise was undertaken to evaluate the capital and operation and maintenance costs associated with a number of different scenarios. Scenarios modelled included co-collection of wastes and changes in collection frequency. Although collection costs can only be determined through a formal procurement process, the option to reduce the frequency of garbage collection and co-collect recycling and SSO on a weekly basis was identified as the most cost effective option for waste collection with the introduction of an SSO program. This evaluation was provided in a separate study undertaken by exp Services Inc. entitled City of Peterborough Integrated Waste Collection Modelling Study (2018).

Ultimately, the results of the study identified that there would be benefits to processing SSO at a City-owned site using appropriate amounts of LYW as a bulking agent in the composting process. It was also deemed optimum for the City to have the highest degree of control possible with respect to long term management of SSO and that either a municipally-owned or private sector owned facility on municipal property would be ideal.

### **Selected Composting Technology - GORE™**

While various systems were investigated the GORE™ Cover System has been identified as the preferred technology for this project and was specifically identified in the Federal grant submission.

The GORE™ Cover System is a proven technology with many successful facilities across Canada, and more than 300 plants in 26 countries. It utilizes a specially designed cover to create an enclosed system that optimizes the composting process.

## **Review of options for City of Peterborough organic material diversion**

The province has issued a Policy Statement by the Ministry of Environment Conservation and Parks (MECP) recommending 70% waste reduction and resource recovery of food and organic wastes by 2023. If adopted, it could lead to strict regulations and targets for the City of Peterborough to manage organic waste. Even without regulations, there are compelling arguments for diversion of organic wastes from the landfill. Organic wastes comprise a significant portion of the landfill capacity; therefore a diversion program will provide several benefits. Those benefits include extending the landfill viable life, reducing greenhouse gas production, and supporting local farmers and economy with a valuable end product.

Upon internal assessment, staff recommend, the City of Peterborough proceed with the organics project as proposed.

## **Project Description**

The City has been running a very small pilot Green Bin program for a number of years and the Peterborough Organics Project will expand this program City-wide. Implementation of a SSO collection program including support for the purchase of collection vehicles, purchase and distribution of organics bins, and development and delivery of marketing / communications outreach are eligible for support through the LCEF grant. With the financial support of the LCEF, the City is positioned to move the long-awaited Organics Project forward. This project has innumerable benefits to the environment, the community and the economy. The City estimates over 19,000 tonnes of SSO and almost 13,000 tonnes of LYW will be diverted annually, resulting in 1,943 tCO<sub>2</sub>e (tonnes of CO<sub>2</sub> emission) reduction in 2030 and 70,905 tCO<sub>2</sub>e (tonnes of CO<sub>2</sub> cumulative emission) reduction to 2050.

## **Council Approval of Non-standard Procurement**

Sustainable Generation is the sole distributor of the GORE™ composting technology in Canada. Under section 11.3.1.b.ii of Procurement By-law 18-084, Council approval is required for the non-standard procurement of a single source provider of value over \$100,000.

## **Next Steps**

The timing for the next steps is geared toward the implementation of household organics collection and processing in September 2023. Listed below are the major actions that are required but not necessarily in the order they will be completed. Certain actions will be concurrent and others are sequential using information from one action to inform the subsequent action.

- Secure all necessary approvals for the construction of an organics processing facility, including planning and zoning approvals from the Township of Otonabee

South Monaghan and an Environmental Compliance Approval (ECA) from the Ontario MECC;

- Design and construct the organics processing facility;
- Secure the necessary bins and trucks for the collection of SSO;
- Develop and implement a public education and advertisement campaign necessary to the success of the SSO collection system;
- Ensure all reporting requirements related to the LCEF Grant are completed on a timely basis;
- Implement the SSO collection system.

## Summary

The City's receipt of the LCEF funding has made the long-awaited collection and processing of Source Separated Organics a reality, with a target of 2023 implementation.

Submitted by,

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Commissioner of Infrastructure and Planning Services

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