

### **CIF Project # 954 – Hasting Highlands Collection & Processing RFP Support**

#### **Background**

Hastings Highlands was using 22yd roll-off bins to collect and transport Blue Box materials from its nine local depots. The roll-off bins were collected weekly or bi-weekly depending on seasonal usage of the site. The weight captured by each roll-off delivered to HGC (their contract processor) averaged between 1 and 1.5 tonnes per bin. The reported low load weights were typical of the inefficiencies expected with uncompacted roll-offs and was proving to be a high cost to Hastings Highlands when coupled with the long distances they were being transported by the contractor to the MRF. It also had a direct effect on the carbon footprint of the municipality. Hastings Highlands wanted to deal with both these issues but an analysis by the CIF showed there was insufficient tonnage at any of the sites to warrant installation of compactors. As an alternative, Hasting Highlands wanted to explore using a Front Load Bin (FEL) system that would be collected by a front load compacting truck. This option would, in theory, allow them to achieve weights of as much as five tonnes per load and the potential to significantly reduce annual hauling costs.

The other potential benefits to using 8yd FEL bins included a smaller carbon footprint and the ability to better monitor the Blue Box material that was being put in. This design had the potential to reduce costs by cutting down on residual waste and improper sorting.

#### **Summary of Results**

In 2016, the Emerald Group was hired to assist Hastings Highlands' staff in exploring the feasibility of this option with local processors and, if this option proved to be feasible, they would develop, issue and evaluate a recycling collection and processing RFP and convert their nine local depots to FEL collection service. The municipality's surplus 40yd bins would then be sold. The Emerald Group confirmed that Beaumen Waste Management Systems Ltd. out of Renfrew was willing to explore this option and estimated it could reduce Hastings Highlands' hauling and processing costs by 30-40%.

#### **Financials**

The CIF approved funding of \$12,000 in support and the final cost of the project was \$10,638.

## Learnings

The results of the RFP confirmed Hastings Highlands' expectations. The new contract with Beaumen's for FEL service offered a savings of over \$14,000/yr and a payback of under five years on the investment in the new system.

This project highlights continued findings by CIF that the use of uncompacted roll-offs at municipal depots are a very inefficient and expensive means of collection where hauling off-site is involved. The use of FEL service is an ideal fit for rural and cottage communities where 'milk runs' can be coordinated between sites and where insufficient tonnage is available to warrant installation of compactors. The smaller bins allow for greater flexibility in handling varying quantities associated with seasonal traffic and reduces the capital costs of earth works and safety hazards associated with 'saw tooth' depot designs.

Analysis of the new system's performance and actual savings is part of CIF Project #955.