

'Big Blue Belly' & BIA Pilot Project Update

**General Committee
Presentation
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Company Overview



- **Solar powered public space waste compactor manufacturer based in Newton, Massachusetts, USA**
- **Uses renewable solar power to dramatically lower operating costs, fuel consumption and greenhouse gas emissions associated with the waste collection process**
- **Customers have realized several benefits including increased recycling rates, reduced container overflow resulting in reduction of litter and lowered public health concerns**

Other Cities Using Big Belly

- Communities such as Banff, Alberta; Halifax, Nova Scotia; Shoreline, Washington; Chicago, Harvard University, and Philadelphia are using Big Belly Solar containers for public space waste collection.
- Markham is the first community to pilot the Big Belly for the collection of recyclables



Banff, Alberta

Focus on Philadelphia

- **The Challenge:** Reducing operating costs to balance the budget, while maintaining service levels
- **In 2009 replaced 700 conventional trash bins with 500 Big Belly garbage compactors and 210 companion recycling units**
- **Achieved \$900,000 savings in operating costs (labour hours, fuel expenses, vehicle maintenance) in year one and a projected \$13,000,000 savings over the next 10 years – A 70% reduction in operating costs**



Container Operation

- The Big Blue Belly has a solar panel on the top on the container – no electricity required
- When materials are placed inside the container, a sensor is signalled which activates the compactor which crushes the materials inside, making room for more
- Each container is fitted with CLEAN wireless hardware that can alert staff when the container is full and needs to be emptied - saving staff time, reducing litter and greenhouse gasses from collection vehicles



Pilot Project

- In June 2010 Waste & Environmental Management began a Big Belly Pilot Project utilizing funding from MESF and the 2010 capital project for Public Space & Special Event Recycling toward the purchase of four Big Belly units
- Three units were used for the collection of commingled recyclables and one for the collection of garbage

Location	Garbage	Recycling
Civic Centre	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
St. Roberts Soccer Field		<input checked="" type="checkbox"/>
Centennial Community Centre		<input checked="" type="checkbox"/>

Big Belly Composition Audit Pilot Project

Location	Garbage	Recycling
Centennial Community Centre - Recycling	5%	95%
St. Roberts Soccer - Recycling	5%	95%
Civic Centre - Recycling	10%	90%
Civic Centre - Garbage	80%	20%

Pilot Project Expansion to Unionville BIA



Unionville Heritage
Recycling Containers

- Plans to expand the pilot to historic Main Street Unionville are underway for spring 2011 implementation
- Development of container placement plan with BIA. Capital budget for up to 8 Big Belly's for recyclables. However, 1 may not be required through the redirecting of an existing Town-owned Big Belly.
- Current waste containers will be gradually replaced with Big Belly's and new Heritage waste containers
- Containers will be wrapped in approved artwork that depicts official heritage colours and graphics

Pilot Project Expansion to Markham Village BIA



Markham Village Heritage
Recycling Containers

- Plans to expand the pilot to the Markham Village BIA is underway for spring 2011 implementation
- Capital approval for up to 8 Big Belly's on Main Street Markham. However, 1 may not be required through the redirecting of an existing Town-owned Big Belly.
- Current waste containers will be gradually replaced with Big Belly's and new Heritage waste containers
- Containers will be wrapped in approved artwork that depicts official heritage colours and graphics

Proposed Heritage Waste Container



Zero Waste Target - BIA

- Ban styrofoam coffee and ice cream containers
- Replace with recyclable containers linked to Big Belly graphics
- Supported by BIA



Budget

Approved Capital Budget 2011 for Markham & Unionville BIA includes

☐ \$76,300 for 16 Big Belly units :

☐8 - Markham

☐8 - Unionville

☐\$50,900 for approximately 50 Heritage waste containers

- Both Projects are Gas Tax funded**
- CIF (Waste Diversion Ontario) funding application submitted**

Next Steps

- ✓ **Heritage committee approval obtained for Big Belly pilot**
- ❑ **Complete placement plans for both streets with BIA and Operations Dept.**
- ❑ **Develop marketing plan**
- ❑ **Monitor :**
 - ❖ Operational impacts/benefits
 - ❖ Determine public acceptance
 - ❖ Monitor street cleanliness
- ❑ **Utilization of remote software program (awaiting Canadian licensing – expected in July 2012)**
- ❑ **Report back to Council October 2011 on pilot results**

Recommendation

That the presentation titled 'Big Blue Belly' & BIA Pilot Project Update' be received.