



Report to: Environmental Issue Committee

Meeting Date: TBD

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**SUBJECT:** Markham Environmental Sustainability Fund (MESF),  
Funding Applications, Spring 2016

**PREPARED BY:** Claudia Marsales, Senior Manager, Waste and Environmental  
Management

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**RECOMMENDATION:**

1. The funding application by Unionville Public School for an Outdoor Classroom initiative, for \$5,000.00, be approved;
2. The funding application by the Markham Sustainability Office for the Glencrest Park Revitalization project, for \$10,000.00, be approved;
3. The funding application by Re-Play Ontario for a Sports Equipment Reuse Program, for \$10,000.00, be approved;
4. The funding application by Canadian Urban Transit Research & Innovation Consortium (CUTRIC) for an Electric School Bus Feasibility Study, for \$10,000.00, not be approved due to concerns with the efficiency and effectiveness of the study, including technology concerns and lack of School Board participation;
5. That the funds totaling \$25,000.00 be provided from the 2016 Markham Environmental Sustainability Fund (MESF), account #87 2800168;
6. And further, that Staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to recommend that funding from the Markham Environmental Sustainability Fund be provided for two Community Environmental projects and one Staff Environmental project for a total of \$25,000.00.

**BACKGROUND:**

The City of Markham Council created the MESF to provide financial resources for City of Markham-based projects and initiatives that promote environmental responsibility and enhance the protection of the City's natural resources.

**OPTIONS/ DISCUSSION:**

The report recommends that the request for an electric school bus feasibility study not be approved due to the following:

- Electric vehicle technology is already well documented in other studies including a school bus study in California
- The decrease in efficiency of electric technology when used in a climate region like Southern Ontario
- The study length proposed is not be long enough to obtain accurate information
- Participation and support from the School Board has not been obtained

**FINANCIAL CONSIDERATIONS**

The Spring 2016 deadline for MESF applications was February 12, 2016. Each application has been evaluated based upon funding criteria. The following chart summarizes recommended expenditures from the MESF Reserve Fund for Spring 2016.

<b>MESF Funding 2016</b>	
<b>TOTAL MESF FUNDING Available</b>	<b>\$118,489.27</b>
<b>ZERO WASTE FOR SCHOOLS*</b> ( <i>managed by Waste Management staff</i> )	<b>\$25,000.00</b>
<b>Remaining 2016 MESF FUNDING</b>	<b>\$93,489.27</b>
<b>FUNDING RECOMMENDED FOR MESF PROJECTS-Spring 2016 cycle</b>	
Unionville Public School Outdoor Classroom	\$5,000.00
Sustainability Office Glencrest Park Revitalization	\$10,000.00
Re-Play Sports Equipment Reuse Program	\$10,000.00
<b>Total Spring 2016</b>	<b>\$25,000.00</b>
<b>MESF FUNDS REMAINING for Fall 2016</b>	<b>\$68,489.27</b>

*\*Zero Waste for Schools Program allocated \$25,000 on an annual basis beginning 2013 as approved by Council on December 18, 2012*

**HUMAN RESOURCES CONSIDERATIONS**

Not Applicable

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

All three recommended projects align with Corporate initiatives regarding environmental sustainability. The Glencrest Park Revitalization Project and the Unionville Public School Outdoor Classroom both support Council direction to explore pollinator friendly initiatives for the City.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

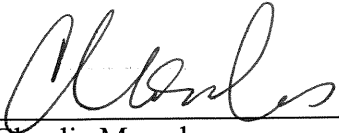
Finance

Operations

Fleet & Supplies

Sustainability office

**RECOMMENDED BY:**



Claudia Marsales

Senior Manager, Waste & Environmental Management

**ATTACHMENTS:**

1. Unionville Public School – Outdoor Classroom Initiative requesting \$5,000
2. Markham Sustainability Office–Glencrest Park Revitalization requesting \$10,000
3. Re-Play Ontario: Sports Equipment for the Community – Sports Equipment Reuse Program requesting \$10,000
4. Canadian Urban Transit Research & Innovation Consortium (CUTRIC) –Electric School Bus Feasibility Study requesting \$10,000

# Spring 2016MESF Funding Report Attachments

## 1. Unionville Public School – Outdoor Classroom Initiative requesting \$5,000

Unionville Public School (UPS) is an elementary school within York Region District School Board and is located at 300 Main Street Unionville. It is a school of 325 students with a high level of commitment to ecological issues. In 2014, UPS achieved Bronze level eco-certification and Gold in 2015. UPS won the Ontario Eco Schools Eco Action Challenge in 2015 for an event called Nature Buddies, where older students were paired with younger ones to explore the outdoors. Other environmental initiatives that UPS participates in are a marker recycling campaign via Crayola and Markham's Milk Bag Project. To continue their environmental momentum, UPS is developing an outdoor classroom and butterfly garden. Details of the project are as follows:

- Project will take place in 4 phases (Phase 1, Phase 2A,2B,2C)
- Phase 1 will include creating a Monarch Butterfly garden
- In Phase 2A, 6 armour stones for the outdoor classroom and a Buddy Bench will be installed and in Phase 2B 6 armour stones will be installed to complete the classroom
- Phase 2C consists of planting 9 Red Osier Dogwood and 13 Yellow Potentilla plants within the outdoor classroom
- The outdoor classroom has been designed with the ability to support individual work, group work and full class work while maintaining visibility by the instructor at all times
- The Monarch Butterfly garden will be based on guidelines found at monarchwatch.org and will meet the needs of the threatened butterfly so they can reproduce and feed
- The outdoor classroom and butterfly garden will help correlate with classroom lessons:
  - Grade 1 – Needs and Characteristics of Living Things
  - Grade 2 – Growth and Changes in Animals: Air and Water in the Environment
  - Grade 1 – Growth and Changes in Plants, soils and the Environment
  - Grade 4 – Habitats and Communities
  - Grade 5 – Conservation of Energy and Resources
  - Grade 6 – Biodiversity
  - Grade 6 – Interactions in the Environment

### Project Cost Summary:

Total Project Cost:	\$11,559.06
Amount requested from MESF:	\$5,000.00
Amount requested from other sources:	\$6,559.06

***Staff Recommendation: That the funding application from Unionville Public School for \$5,000 for an outdoor classroom and butterfly garden project be approved***

## **2. Markham Sustainability Office–Glencrest Park Revitalization requesting \$10,000**

In 2011, Council directed City of Markham staff to collaborate with the Toronto and Region Conservation Authority to identify and lead the development of a Sustainable Neighbourhood retrofit Action Plan (SNAP) within Thornhill community, thereby creating the Bayview Glen SNAP. Currently, Glencrest Park includes limited recreational facilities such as an outdated playground and a small baseball diamond. The park has a valley-like topography created by a small watercourse that once traversed the site. A corrugated steel culvert has replaced the watercourse and is being upgraded as part of the flood remediation work the City is undertaking. Much of the tree cover in the park was destroyed by Emerald Ash Borer and removed in Spring 2014. The remainder of the park landscape is maintained turf. The Revitalization project is part of the Bayview Glen SNAP and aims to promote local sustainability and will improve recreational facilities, storm water management, landscape and active transportation infrastructure. Details of the project are as follows:

- The design includes: meditation garden, pollinator gardens, open play space, storm water attenuation/rain gardens, naturalized area with native species, new playground, shade structure, labyrinth, picnic area and pedestrian walkways
- MESF funds will support the naturalization component and interpretive signage of the park
- Two community events will take place as part of the revitalization project: Spring 2016 public art event and Fall 2016 community tree planting event
- Markham Operations Department is actively involved in this project

### **Project Cost Summary:**

Total Project Cost:	\$424,800.00
Amount requested from MESF:	\$10,000.00
Amount requested from other sources:	\$414,800.00

***Staff Recommendation: That the funding application from Sustainability Office for \$10,000 for a revitalization project be approved.***

### **3. Re-Play Ontario: Sports Equipment for the Community – Sports Equipment Reuse Program requesting \$10,000**

Re-Play is a new program focused on minimizing the barriers surrounding participation in sports by providing accessible and affordable second-hand sports equipment to children. Re-Play has been formed by a group of grade 12 students across York Region and aims to collect clean and useable sports equipment to redistribute to community members in need. This program promotes healthy lifestyle choices and minimizes environmental impact by diverting used sports equipment from landfills. The founding students wish to turn this program into an organization and intend to expand to other parts of Ontario. Details of the program are as follows:

- Social media platforms have been set up for promotion and to take donation requests
- Collection opportunities:
  - Drop boxes at Markham Community Centres and Recycling Depots
  - Pick up equipment from donors at pre determined location
  - Drop-off events
  - Project 5K events – equipment donation in lieu of entrance fee
- Distribution opportunities:
  - Seasonal “garage sales” using pay-what-you-want model
  - Community trade-in events
  - Individuals or organizations can request equipment
- The total pieces of equipment collected and donated back into the community will be tracked
- Partnerships with Project 5K, Creativity Through Arts and Vision Youth Leadership program have been acquired
  - Re-Play has reached out to organizations such as the Unionville Curling Club, Blackmore & Markham Tennis Clubs, and Project 1to100 and anticipates partnerships with local schools, soccer clubs, Scouts, YMCA, Sport Chek, and the Toronto Lions Club, among others
  - Re-Play is exploring partnerships with the Salvation Army for recycling equipment that cannot be reused and City of Markham Community Centres to purchase used sports equipment
- MESF funding will be used to rent storage units to sort, clean and organize equipment

#### **Project Cost Summary:**

Total Project Cost:	\$10,000.00
Amount requested from MESF:	\$10,000.00
Amount requested from other sources:	\$0

***Staff Recommendation: That the funding application from Re-Play for \$10,000 for a sports equipment reuse program be approved***

#### **4. Canadian Urban Transit Research & Innovation Consortium (CUTRIC) – Electric School Bus Feasibility Study requesting \$10,000**

Canadian Urban Transit Research & Innovation Consortium (CUTRIC) was implemented in 2014 with support from the Canadian Urban Transit Association and its main objective is to maintain industry-academic collaborations in the development of technologies for Canadian transit systems. This initiative would prepare a Feasibility Study that documents the full range of technical and social metrics required to launch an on-road, demonstration trial of an electric school bus in the 2016-2017 academic year. The study will prepare the conversion of a Markham diesel school bus route to an electric school bus route. Markham would be the first municipality in Ontario to undertake a Feasibility Study and eventual on-road trial of an electric school bus. Details of the project are as follows:

- The study is a component of the larger Electric School Bus Demonstration Trial and will be owned by the City of Markham
- The on-road trial will be chosen for a Markham elementary school/bus route
- The study will consist of 4 consultation sessions
- Consultation groups will include:
  - Bus manufacturer, Powerstream, school bus operator, school administrators, parents/parent councils (from selected school as well as other schools), School Board representatives, School Board trustees, City of Markham
- After the 3<sup>rd</sup> consultation session the most appropriate school will be chosen for the on-road demonstration trial
- The final Feasibility Study will include:
  - Requirements of the electric school bus (technical) and electric grid (technical)
  - Requirements of parents, administration and school officials (social)
  - Requirements of City of Markham (technical and social)
  - Full cost analysis and breakdown of private sector and public sector contributions required for the on-road trial phase (there will be no additional financial requirements from the City of Markham, unless applicant submits project to MESF next year)
- MESF funding will be used to hire an intern to support the consultation sessions, conduct research and draft the study

#### **Project Cost Summary:**

Total Project Cost:	\$22,055.00
Amount requested from MESF:	\$10,000.00
Amount requested from other sources:	\$12,055.00

***Staff Recommendation: That the funding application from CUTRIC for \$10,000 for an electric school bus Feasibility Study not be approved for reasons mentioned in the report on page 2.***