



STAFF REPORT ACTION REQUIRED

Waste Audit of City Parks – Supplementary Report

Date:	February 5, 2008
To:	Parks and Environment Committee
From:	Brenda Librecz, General Manager, Parks, Forestry and Recreation Geoff Rathbone, General Manager, Solid Waste Management Services
Wards:	All
Reference Number:	

SUMMARY

This report outlines Parks, Forestry and Recreation's (PF&R) and Solid Waste Management Services' (SWMS) efforts to increase recycling and dog waste diversion in parks. It also provides information on the effectiveness of PF&R By-law Enforcement in curbing household illegal dumping and disposal of wastes.

In 2007, PF&R launched a public education campaign on waste diversion, including hiring 6 seasonal waste diversion education staff and implementing a TTC advertising campaign on park recycling. Other efforts to increase park recycling have included the purchase of new park recycling bins, the development of new waste and recycling standards and the application of new recycling basket labels. SWMS will also be adding new items to the recycling stream in the near future, to increase material capture rates.

In addressing dog waste in park litter bins, PF&R initiated 3 dog waste pilots based on research on dog waste management in other cities around the world. The pilots included a carry-in, carry-out pilot, a septic waste pilot and a green bin pilot.

PF&R has further reduced household illegal dumping in parks through the actions of its By-law Enforcement Unit. Since the start of 2007, the Unit has issued over 500 tickets or summons for illegal dumping of household waste.

RECOMMENDATIONS

The General Managers of Parks, Forestry and Recreation and Solid Waste Management Services recommend that:

1. Parks, Forestry and Recreation and Solid Waste Management Services work together on the implementation of the green bin program in recreation facilities following final implementation of the residential multi-unit and school green bin program;
2. Parks, Forestry and Recreation issue a request for proposal to study alternate methods to divert dog waste from the Parks litter stream; and
3. The General Manager of Parks, Forestry and Recreation, in consultation with the General Manager of Solid Waste Management Services, report back on methods to divert dog waste from the Parks litter stream, pending the outcome of questions about the feasibility of collecting and processing large quantities of dog waste in parks.

Financial Impact

There is no financial impact resulting from this report.

DECISION HISTORY

On April 10, 2007, the Parks and Environment Committee requested that PF&R, along with SWMS, report back on improving and expanding recycling in parks, options for diverting dog waste from the litter stream and increasing the green bin program in parks, as well as the effectiveness of By-law enforcement in curbing and cleaning up of household illegal dumping in parks.

For additional information, see:

<http://www.toronto.ca/legdocs/mmis/2007/pe/decisions/2007-04-10-pe03-dd.pdf>

ISSUE BACKGROUND

In an effort to meet Council's Waste Diversion goal of 60% diversion by 2007, PF&R conducted a Parks Waste Audit in 2006 to collect information about the current waste composition in 126 City of Toronto Parks. This was aimed at helping PF&R staff make informed decisions on ongoing waste diversion and By-law Enforcement activities in parks. A Staff Report on the result of the audit was presented to the Parks and Environment Committee on April 10, 2007.

The Parks Waste Audit highlighted the large composition of dog waste (25% by weight) and illegally dumped materials (10-15% by weight) in litter baskets. The audit report also made recommendations for improving park diversion rates, increasing material capture in recycling baskets and decreasing illegal dumping.

The audit results have provided information for PF&R in charting future directions to increase diversion rates in parks in order to meet Council's new target of 70% diversion by 2010, as well as meet the goals of the PF&R 2007-2010 Waste Diversion Plan. As a consequence, 2007 was identified as a year to focus on public education and promotion, new avenues to increase recycling capture and new approaches to managing dog waste.

The results of these efforts have provided information for PF&R in recommending future directions for waste diversion in parks in 2008.

COMMENTS

Since 2004, PF&R has been implementing a variety of waste diversion initiatives, including the installation of recycling baskets and in-ground bins in parks, training designated Environmental Stewards in waste diversion, establishing a partnership with Toronto School Boards for park clean-ups with students, and establishing a Parks By-law Enforcement Unit to curb illegal dumping.

These efforts have greatly improved diversion rates in parks, from 28% in 2004 up to 43% in 2006. The Parks Waste Audit identified additional areas for improvement in 2007. Following the implementation of the initiatives described below in 2007, another Parks Waste Audit would help assess their effectiveness and provide baseline data for direction on future actions.

Public Education and Promotion

Several approaches towards public education and promotion were taken in 2007. On a macro scale, promotion of waste diversion in parks to the broader public was accomplished through a TTC advertising campaign of the "See Them? Use Them." poster, running from the beginning of July through to the middle of August. Inside buses, streetcars and subway cars, 2,000 posters were featured, along with 200 larger posters located on the back of buses (see Image 1 below). Another 144 posters were featured on Eucan bins across Toronto.

Image 1: Back of Bus Poster



Complementing this campaign, 45 of the same posters were printed on a metal backing and featured on park buildings and park trucks (see Image 2 below). Additional reduce, reuse and recycle updates were placed in full-page ads in the Toronto Fun Guide 2007 Spring/Summer and Fall/Winter editions.

Image 2: Poster on Park Truck



Public education on a more micro level was implemented through the hiring of 6 waste diversion education staff who delivered educational programming, staff training and outreach in parks City-wide. In 2007, they were able to train 165 parks staff, provide outreach at 8 parks to 950 people and host interactive waste diversion displays and activities for 2,474 people at 21 special events in parks.

An ongoing partnership with the Toronto District and Catholic School Boards continues in an effort to engage students in litter clean-ups in parks adjacent to schools. The goal is to provide education around the differences between litter and recyclable materials and establish park stewardship values. In 2007, a total of 242 school classes were involved in spring and fall clean-up events in parks adjacent to school grounds.

As an extension of this, a Park Stewards Program has been established with 5 schools among the Public and Catholic School Boards. The partnership includes meetings and educational sessions with Waste Diversion Education Staff and the local Park Supervisors or their designates, monthly lesson plans addressing waste diversion and local ecology as it relates to the curriculum and monthly park clean-ups.

Continued waste diversion education efforts in PF&R in 2008, on both a macro and micro level, would help support the ongoing instruction of PF&R staff and Toronto residents in park recycling procedures and waste diversion initiatives and help foster park stewardship values.

Improvements in Park Recycling and Diversion

With the addition of new recycling baskets in parks each year, the goal has been to twin all litter baskets with recycling baskets. There are approximately 6,000 park litter baskets. In 2007, 1,475 recycling baskets were purchased and placed in parks, for a cumulative total of over 4,800 recycling baskets secured for parks since 2005.

In the Parks Waste Audit report, numerous recommendations were put forward to improve waste diversion efforts in parks and enhance recycling material capture in park recycling baskets. These recommendations shaped the new Park Waste and Recycling Standards, which came into effect June 26, 2007. The standards include new procedures for the following:

- a. labelling all park baskets with appropriate litter and recycling labels;
- b. lining recycling baskets with clear plastic bags;
- c. twinning all recycling baskets with litter baskets;
- d. removing litter baskets and supplying only recycling baskets in high volume recycling areas, such as sports fields and tennis courts;
- e. removing litter baskets from problematic areas with a history of illegal dumping;
- f. securing and fencing in bulk bin locations with a high volume of illegal dumping;
- g. moving park litter and recycling baskets at least 25 to 30 feet from the curb, where there is pathway access, to avoid illegally dumped household waste;
- h. removing litter and recycling baskets in close proximity to Solid Waste's Eucan or OMG receptacles;
- i. reporting instances of illegal dumping to the Parks By-law Enforcement Unit for investigation; and,
- j. recycling and disposing of hazardous waste appropriately.

Members of Council were advised of these new standards on July 4, 2007.

New blue recycling labels were produced and applied to the lids of new recycling baskets purchased in 2007. The labels reflect the new SWMS single recycling stream that includes both paper and plastic/metal/glass materials (see Image 3 below). Single stream recycling labels produced by SWMS were also used for the side panels of these new recycling baskets. These new pictorial labels will reduce public confusion about what materials are accepted in park recycling baskets, which are consistent with SWMS program and labelling.

Image 3: Single Stream Recycling Label



New materials will be added to the City’s recycling stream which may increase the diversion of Park waste. At its meeting held on July 25, 26 and 27, 2006, City Council approved the Works Committee Report No. 5, Clause 10 of “Addition of New Materials to the Blue Box Program”. The report recommended that plastic film and polystyrene be added to the Blue Box Program subject to implementation of a new container system that will provide residents with the necessary capacity for their recyclables. The report and Council’s decision can be viewed at:
<http://www.toronto.ca/legdocs/2006/agendas/council/cc060725/wks5rpt/cl010.pdf>.

Dog Waste Pilots

Following the Parks Waste Audit in 2006, extensive research was conducted into what municipalities across the world are successfully doing with their dog waste. Based on an analysis of this research, three options were chosen as the most suitable for application in a Toronto park context: a green bin pilot, a carry-in, carry-out pilot and a septic waste pilot.

Through cooperation between PF&R and SWMS, green bin pilots were launched in 5 parks and focused near off-leash or picnic areas. The 2007 park locations included Trinity Bellwoods Park, Withrow Park, Earl Bales Park, Neilson Park and Cruickshank Park. The pilots were all initiated in early May, except for the Withrow pilot, which was initiated in mid-June. The parks were selected due to their accessibility by SWMS trucks, as well as their features to support a green bin, such as dogs off-leash or picnic areas.

The bins have been placed adjacent to litter and recycling bins by Park staff, however members of the public tend to move the bins around. Clear signage has been posted above and on the green bin to indicate its use (see Image 4 below). SWMS collects the dog waste weekly. The dog waste is added to the organic materials collected via the green bin and commercial organics collection programs and then processed either at the City’s Dufferin organics processing facility or at a private facility under contract to the City.

Image 4: Green Bin Pilot and Signage



Audits of the bin contents were conducted in June, July and August. The audits revealed that the material collected in the Green Bins was relatively uncontaminated, i.e. usually just dog waste in plastic bags. However the audit was limited to green bin material, and the overall recovery of dog waste via the green bins is unknown.

There are remaining questions about the feasibility of collecting large quantities of dog waste in park green bins and processing the dog waste with Source Separated Organic (SSO) material from residential and commercial sources. Outstanding questions regarding the efficacy and efficiency of this approach to diverting dog waste include:

- ability of organics processing operations to successfully separate dog waste from film plastic bags;
- does the actual amount of dog waste that can be diverted exceed the additional residue that would result from processing dog waste with SSO material;
- estimated recovery rates and existing organic material processing capacity limitations;
- collection and handling challenges;
- applicability - is this approach appropriate for all or only some parks, and what are the factors that determine applicability.

The Green Bin pilots will continue at the existing locations in 2008 in order to further investigate these outstanding issues.

The second pilot at Dean Park Walkway and Humber Gate Park involves carry-in, carry-out signage posted at every entrance to the park pathways, as well as the removal of all litter and recycling bins. These sites were chosen specifically due to the availability of specific entry and exit points that could be well signed. The signs explain to park visitors the purpose of the pilot and requests that users remove all waste (not just dog waste) that they carry in to the park and then carry it out to be disposed of at their waste receptacles at home (see Images 5 and 6 below). The Dean Park Walkway pilot was launched on July 30th and the Humber Gate Park pilot was initiated on September 17th.

Image 5: Carry-in, Carry-out Sign at Dean Park Walkway



Image 6: Wording of Carry-in, Carry-out Signage



Public response to the carry-in, carry-out pilot has been mixed. At Dean Park Walkway, there were no complaints filed, and littering or illegal dumping was non-existent or minimal. The Park Supervisor also approached the nearby school principal to enlist student support for the pilot in order to keep the park clean. In Humber Gate Park, although no complaints were originally registered, by mid-October, one of the signs was ripped out of the ground and a large quantity of dog waste in individual bags was piled next to the sign.

Despite these difficulties, the pilot is now being initiated in other parks across Toronto, with the support of individual City Councillors. To date, the pilot has been launched at Plover Easement and Trumpetter Parkette and recommend the expansion of this program.

The least successful of the three pilots was the septic waste pilot implemented at Woburn Park on July 21st and Sunnybrook Park on August 26th. The pilot included the installation of an 800L in-ground bin, half filled with water and sanitizer, and well signed. Adjacent to the bin a sandbox with rakes and scoopers were placed next to signage asking dog walkers to only use the scoopers to dispose of dog waste and not include plastic bags (see Images 7 and 8 below). The bins were scheduled to be emptied by a septic waste hauler, with the material taken to Toronto Water’s Humber Treatment Plant.

Image 7: Septic Dog Waste Pilot



Image 8: Wording of Septic Pilot Signage



The bins were placed in the fenced dog off-leash area in Woburn Park and the off-leash area in Sunnybrook Park. The pilot became very problematic, due to high levels of contamination. Users of the Woburn bin scooped wood chips, along with the dog waste, from the off-leash area and deposited them into the bin. The wood chips absorbed the bin

water and the mixture became semi-solid and extremely costly (\$1,000/bin) and difficult to empty. Only one septic hauler in the GTA was willing to empty the bin as a one-time service. Park users also deposited plastic bags into the bins, which could not be emptied by a septic waste hauler. The bin was converted for litter use and all pilot signs and scoops/shovels were removed.

The Sunnybrook bin was continuously contaminated with plastic bags containing dog waste. These bags could not be emptied by the septic waste hauler, and had to be fished out twice by Parks staff, presenting a health and safety challenge. The bin was converted for litter use and all pilot signs and scoops/shovels were removed. This program is not recommended as it is cost prohibitive and causes Health and Safety issues for the staff due to the contamination.

Information on all three of these pilots was posted as a question and answer section on the PF&R external waste diversion web site.

Curbing Illegal Dumping

Currently, approximately 90% of illegally dumped waste in parks is generated by households. Household illegal dumping typically increases when there is a change in collection procedures or schedules, when a new program is introduced (e.g. green bin) or following announcement by SWMS of materials that it will no longer accept.

Since 2004, the Parks By-law Enforcement Unit has been working steadily to decrease the incidence of illegal dumping. Seven Enforcement Officers inspect and patrol over 1,500 Parks, trails and waterfront properties owned and leased by the City of Toronto. In order to deter illegal dumping, the following measures have been implemented: replacement of former municipality signage and contradictory signs within parklands, posting of “**No household garbage. Parks litter only**” signs on litter receptacles, erecting signs in locations that are problematic for illegal dumping, installing parking curbs, build fence enclosures around bulk-lift containers, increasing lighting and relocating or removing receptacles that are problematic.

When specific problematic areas are identified, Officers monitor them regularly, which often results in a cessation of dumping. There has been an increase in public awareness that illegal dumping in parks is not tolerated, based on a zero tolerance approach towards illegal dumping in City parks.

Parks by-law has also taken a proactive approach in working with other Divisions. During and after the Mayor’s 20-Minute Makeover, equipment and staff from other Divisions have been utilized to clean-up illegally dumped waste when there is equipment or staffing shortage in Parks. Parks By-law Enforcement also coordinates activities with the enforcement agencies of Municipal Licensing and Standards and Transportation Services.

In addition to the new Parks Waste and Recycling Standards outlined above, promotion of information on illegal dumping has occurred through the distribution of flyers about

illegal dumping and waste diversion to the public by Waste Diversion Education Staff. Since 2005, 435 illegal dumping signs have also been produced and affixed to litter baskets, fencing, benches and poles in parks across Toronto. Parks Supervisors have noted a marked reduction in illegal dumping in areas that feature these signs.

In 2007, Parks By-law Enforcement conducted nearly 5,000 inspections, issued 124 warning notices and issued 513 tickets or summons. The conviction rate for charges laid is 85%.

CONTACT

Paul Ronan, Director of Parks, Parks, Forestry and Recreation
Tel: 416-396-4490, Fax: 416-396-4957, Email: pronan@toronto.ca

Norm Lee, Acting Director of Policy & Planning, Solid Waste Management Services
Tel: 416-397-0207, Fax: 416-392-4754, Email: NLee@toronto.ca

SIGNATURE

Brenda Librecz
General Manager
Parks, Forestry and Recreation

Geoff Rathbone
General Manager
Solid Waste Management Services