

**CITY OF HAMILTON**

***PUBLIC WORKS DEPARTMENT  
Operations and Waste Management Division***

<b>TO:</b> Chair and Members Public Works Committee	<b>WARD(S) AFFECTED:</b> WARDS 1, 2, 3, 4, 5, 10 and 11
<b>COMMITTEE DATE:</b> December 5, 2011	
<b>SUBJECT/REPORT NO:</b> Clean & Safe Crown Point Railway Neighbourhood Pilot Project (PW10084a) - (Wards 1, 2, 3, 4, 5, 10 and 11) (Outstanding Business List Item)	
<b>SUBMITTED BY:</b> Gerry Davis, CMA General Manager Public Works Department	<b>PREPARED BY:</b> Philip Homerski, (905) 546-2424, Ext. 5620
<b>SIGNATURE:</b>	

**RECOMMENDATION:**

- (a) That report PW10084a be received;
- (b) That the item "Littering, Illegal Dumping and Security Issues Affecting Municipal Properties Abutting Railway Lands" be identified as completed and removed from the Public Works Committee Outstanding Business List.

**EXECUTIVE SUMMARY**

This report is a follow-up to Report PW10084 - Litter, Illegal Dumping and Security Issues Affecting Municipal Properties Abutting Railway Lands, to report on the results of the pilot public education program.

In response to the recommendation that staff and stakeholders develop a pilot preventative public education program, Operations & Waste Management staff initiated a pilot project that focused on the area between Ottawa Street North and Parkdale Avenue (see Map showing pilot program area attached as Appendix "A" to Report PW10084a). The objective of the program was to address dumping and security concerns in the neighbourhood.

Residents and business property owners were engaged in the development of the pilot strategies in collaboration with CN Rail and City staff. The engagement of the

community stakeholders from the start of the pilot project resulted in the proposal of pilot strategies that are cost effective, sustainable, measurable and replicable to railway properties with similar illegal dumping and security issues across the City.

Proposed strategies aimed at preventing illegal dumping included a neighbourhood and electronic surveillance program and the closure and sale of the assumed alleyways on the south side of the CN Rail tracks. The community stakeholders' group also supported the further exploration of pedestrian rail crossing options in partnership with CN Rail and the City to address safety and trespassing concerns.

Key to the proposed strategies is the application of community-based social marketing methodology on a neighbourhood-by-neighbourhood basis to ensure appropriate stakeholder involvement that acknowledges the unique characteristics of the neighbourhood. Activities included an inventory of the litter and dumped materials found, several meetings with the stakeholders, a volunteer community clean up and action strategies to address litter and security issues. The detailed methodology used in this pilot project is attached as Appendix "C" to Report PW10084a.

Recognizing that influencing changes in behaviour requires considerable time to be effective and sustainable, collaborative work on the Crown Point neighbourhood strategies will continue in 2012. Based on the success of this work, a second project will be initiated in 2012 in a Ward 3 neighbourhood. The activities associated with the Clean & Safe Railway Neighbourhood projects will be undertaken as part of the Clean City Strategy Work Plan for 2012.

**Alternatives for Consideration - See Page 6**

**FINANCIAL / STAFFING / LEGAL IMPLICATIONS**

**Financial:**

Staff will explore the costs of stopping-up and closing the assumed alleyways on the south side of the CN Rail tracks between Strathearne Avenue and Division Street in consultation with property owners and stakeholders. Staff will continue to facilitate Clean & Safe Railway Neighbourhood pilot programs with meeting and operational expenses funded from the existing Operations & Waste Management Division budgets.

**Staffing:**

Community Outreach staff from Operations & Waste Management and Municipal Law Enforcement (MLE) will continue to facilitate Clean & Safe Railway Neighbourhood programs as required. The continuation of Clean & Safe Crown Point Railway Neighbourhood pilot project will be integrated into the 2012 work plan along with the introduction of the next Clean & Safe Railway Neighbourhood project in Ward 3.

**Legal:**

As per usual process, Legal, Surveys and Real Estate staff will be consulted on the potential stop-up and closure of the designated alleyways in the Crown Point neighbourhood.

## **HISTORICAL BACKGROUND**

At its July 7, 2009 meeting, Council approved a motion directing staff to:

- prepare a report for “respecting opportunities to address littering, illegal dumping and security issues affecting municipal properties abutting railway lands”
- consult with Canadian National Railway officials and other stakeholders
- include consideration of specific neighbourhood conditions along the CN Railway line between Kenilworth Avenue and Strathearne Avenue
- and, develop remediation strategy recommendations for possible implementation city wide or locally as may be required.

In July 2010, staff conducted site visits at several public properties along the CN Railway line to the north and south of the tracks between Wellington Street North and Kenilworth Avenue North. Observations confirmed illegal dumping activity most prevalent in the area south of the tracks between Kenilworth Avenue and Strathearne Avenue. The most significant illegal dumping was evident in or on the lands to the north of the assumed alleyways between Division Street and Strathearne Avenue. Security breaches were evident at various locations where pedestrians cross the railway tracks, particularly behind the Centre on Barton retail shopping complex. To ensure a representative area, the properties abutting the CN Rail tracks between Parkdale Avenue and Ottawa Street were selected for the pilot program (see Map showing pilot program area attached as Appendix “A” to Report PW10084a).

Based on these observations, literature searches on similar illegal dumping and railway security issues and consultation with Canadian National Railways staff, Council approved Item 9 of Public Works Committee Report 10-010 (Report PW10084) and the following recommendations

- That Public Works (Operations & Waste Management) staff, Planning and Economic Development (Municipal Law Enforcement) staff and Canadian National Railway (CN) officials continue to work collaboratively to respond to complaints of littering, dumping and security on and abutting railway properties;*
- That staff and stakeholders develop a pilot preventative public education program for implementation in the spring of 2011 to prevent litter, illegal dumping and security issues on railway properties and on properties abutting the CN railway mainline, with costs funded from existing Operations & Waste Management Division’s Public Education budget resources.;*
- That staff report back to Committee on the results of the pilot public education program in November 2011.*

The purpose of this report is to provide Public Works Committee with a report on activities of the pilot, key findings and learnings and how the program may be implemented in the area of rail lands throughout the City.

## **POLICY IMPLICATIONS**

The pilot project contributes to fulfilling the priorities established in the Public Works Business Plan within “Communities” as it reflects our desire to “be a leader in the “greening” and stewardship of the city” as well as “establish mutually beneficial charters with external customers”.

## **RELEVANT CONSULTATION**

Staff has consulted with CN Railway officials, CP Rail officials, Municipal Law Enforcement, Hamilton Police Service, Hydro One, Clean City Liaison Committee, Councillors’ staff, Recreation staff, Public Health staff and Operations & Waste Management staff. In addition, on-line research and literature searches for relevant data, case studies and best practices has been undertaken through Keep America Beautiful, Community-Based Social Marketing network and Institute of Applied Research.

As a community-based social marketing initiative, consultation with neighbourhood residents and business stakeholders has been central to the development of the pilot program and the recommendations. Representation at the community stakeholders’ sessions included the following groups with the consultation process producing specific outcomes for each group:

- Neighbourhood residents - revealed that illegal dumping has been a long standing problem in the area with perpetrators perceived as coming from other neighbourhoods. Railway security issues (trespassing) is also a long standing habit perceived as a necessity to get from residential neighbourhoods on the north side of the tracks to retail services, schools and facilities on the south side of the tracks.
- Crown Point Community Planning Team representatives - provided communication to residents and coordinated the community cleanup event.
- Neighbourhood businesses (Redcliff Realty, Union Gas, Coca-Cola Bottling and Hay Battery) – all businesses had security concerns related to the project (trespassing, vandalism, etc.) and indicated their desire to work together with all stakeholders on prevention strategies. Redcliff Realty (Centre on Barton) and Union Gas provided meeting space. Union Gas and Coca-Cola Bottling supported the community cleanup event with product and equipment for the barbecue.
- Canadian National Railways representatives - indicated their desire to work with all stakeholders to cleanup and maintain the area and to address track safety and trespassing concerns. CN officials provided personnel and training to ensure volunteers operated safely on railway property during the community cleanup.

- City staff (Operations & Waste Management and Municipal Law Enforcement) - indicated their desire to work with all stakeholders to develop a strategy to identify sources of illegal dumping and to address pedestrian safety issues related to the railway properties.

In addition it is acknowledged the District North Roads assisted by clearing large quantities of debris and brush from the assumed alleyways on the south side of the CN Rail tracks between Strathearne Avenue and Division Street.

## **ANALYSIS / RATIONALE FOR RECOMMENDATION**

### **Rationale for Recommendation**

Using community-based social marketing (CBSM) principles, the pilot project focused on behaviours that would prevent illegal dumping and alleviate security issues. CBSM methodology includes creating barriers to inappropriate behaviour and supporting benefits of behaviour we wish to promote. Illegal dumping behaviour in this area can be reduced considerably by restricting vehicular access to the assumed alleyways running parallel to the railway property on the south side of the tracks between Strathearne Avenue and Division Street. Stop-up and closure of these alleyways would also assist in combating illegal activity and trespassing concerns reported by neighbours. Several property owners abutting the alleyways have indicated their support of stop-up, closure and sale of the abutting alleyways provided the cost is not prohibitive.

With the analysis of the data from the Dumping and Security Survey Tool (as referenced in Report PW10084a as Appendix "B") revealing that the categories of construction materials (14%) and leaf and yard waste (10%) were of greatest volume, coupled with anecdotal reports of large volumes of materials transported into the area, identification of the source of the illegally dumped material is seen as essential to prosecution and prevention of subsequent incidents. Neighbours are supportive of a neighbourhood-watch type of program which would include tips on evidence required to pursue charges and a follow-up mechanism to support the desired action of citizen reporting. CN and CP officials have offered technical advice on electronic surveillance technology to address both illegal dumping and security issues along railway properties.

Residents of the neighbourhood north of the CN Rail tracks between Ottawa Street and Kenilworth Avenue have identified several concerns about the need to access stores, banks and schools on the south side of the tracks. CN Rail officials and neighbourhood stakeholders have acknowledged that maintaining pedestrian safety and reducing trespassing requires further discussion of options and available funding. The parties recommend that the social, economic and environmental impacts of railway security issues need to be addressed collaboratively with CN Rail, Redcliff Realty and City officials to develop short-term and long-term strategies.

**ALTERNATIVES FOR CONSIDERATION:**

The detailed process for the pilot project is included in Appendix C to Report PW10084a. The benefits of the pilot project are:

- Collaborative problem solving through broad stakeholder involvement
- Increased community engagement through neighbourhood leadership
- Sustainable change through stakeholder commitments
- Successful prevention strategies by supporting desired behaviours
- Neighbourhood-based solutions through respect and understanding of unique neighbourhood characteristics

It is proposed that subsequent Clean & Safe Railway Neighbourhood projects be implemented using the same social marketing methodology and ensuring broad based stakeholder inclusion. Illegal dumping and littering research conducted for the Crown Point project can be used to inform subsequent projects. The community cleanup event in the Crown Point neighbourhood was a useful tactic to develop a baseline for maintaining a clean area and as a strategy for community engagement, however a more complete analysis of future projects is proposed to include the cost-benefit of community cleanups for their unique neighbourhood situation to consider the cost to the various parties including the City.

The alternative would be to revert to the reactive management approach for litter, illegal dumping and security issues. Collaboration between the City and CN Railway officials would continue under this option with each property owner responsible for resolving complaints related to litter, dumping or security on the respective properties. This option requires the continued commitment from the property owners to clean up and maintain their properties. Disadvantages include lost opportunities to affect behavioural change or prevent incidents, continued enforcement costs, and potentially increasing costs of remediation on municipal lands.

**Conclusion**

Staff is confident that the benefits of the community based approach outweigh the reactive management of litter, illegal dumping and security issues, which is a costly and minimally effective option in preventing illegal dumping activity or enhancing safety and security. Although resources prevent staff from implementing a City-wide program all at once, existing resources will allow for projects to be implemented over time on a neighbourhood by neighbourhood basis as part of the Clean City Strategy. The appropriate way to implement this approach is through the Clean City Strategy Work Plan for 2012.

## **CORPORATE STRATEGIC PLAN**

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

### ***Skilled, Innovative & Respectful Organization***

- ◆ More innovation, greater teamwork, better client focus

The collaboration between Public Works, Municipal Law Enforcement and Canadian National Railway on a public awareness strategy is an innovative model of teamwork.

### ***Financial Sustainability***

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

The recommendation should result in moving from costly remediation activity to the less resource intensive preventative model of managing litter, illegal dumping and security along railway lines.

### ***Growing Our Economy***

- ◆ An improved customer service

Working in collaboration with railway companies adds value to partnerships that help grow our City's economy.

### ***Environmental Stewardship***

- ◆ Reduce the impact of Hamilton's industrial, commercial Private and Public operations on the environment

The overall goal in the reduction of litter and illegal dumping along railway lands will help reduce negative impacts on terrestrial ecology.

### ***Healthy Community***

- ◆ An engaged Citizenry

The recommended collaborative approach to developing a preventative strategy engages all stakeholders and property owners.

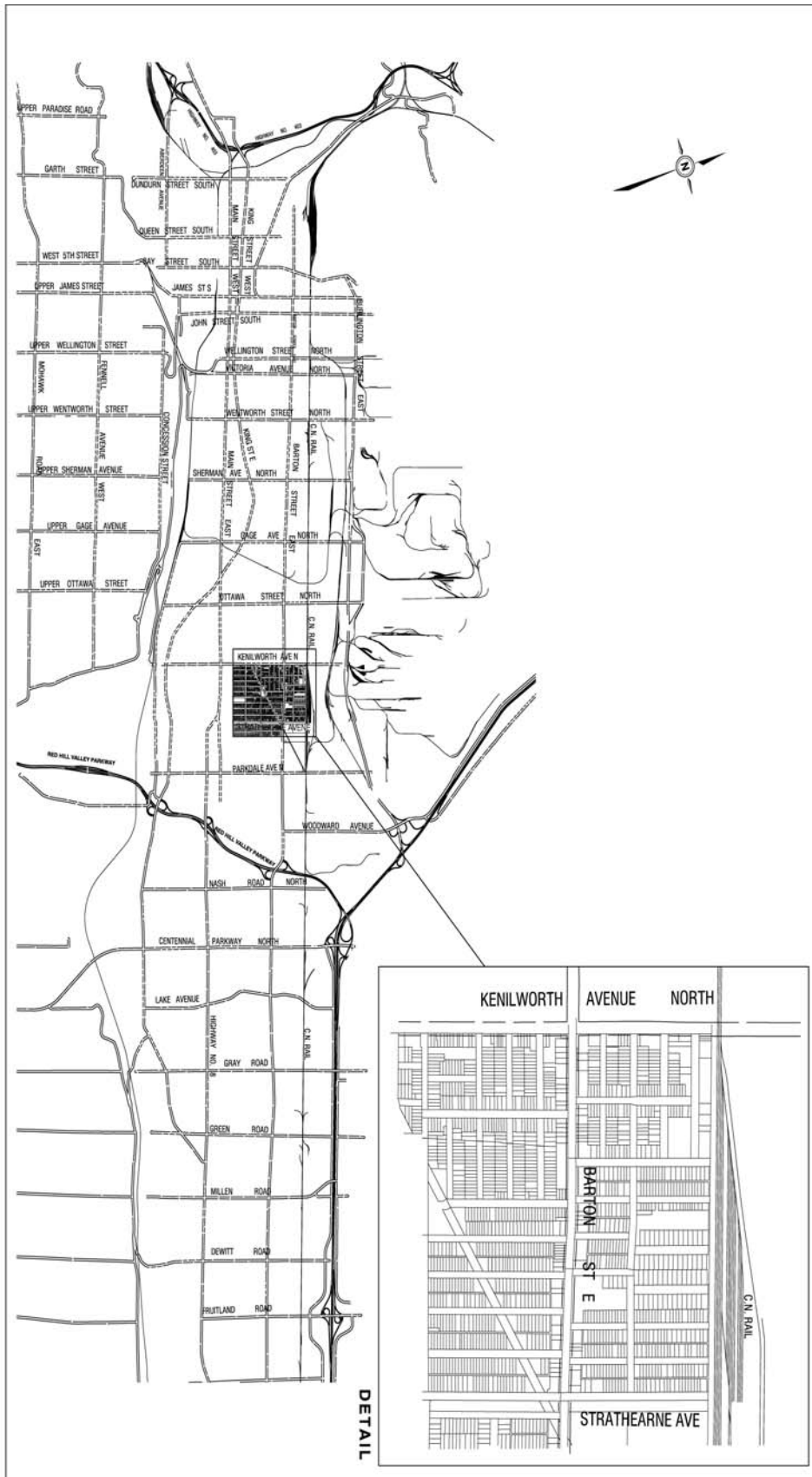
## **APPENDICES / SCHEDULES**

Appendix "A" - Map showing pilot program area

Appendix "B" - Dumping and Security Survey Scoring Scale

Appendix "C" - The Crown Point Process

APPENDIX "A"  
REPORT PW10084a





**APPENDIX "B"**  
**REPORT PW10084a**

Dumping and Security Survey  
Litter and Dumping Scoring Scale

Score	Instructions for Scores
0	<p><b>No litter</b></p> <p>Item being scored not observed (e.g. no clothing/shoes observed in sub-area).</p>
1	<p><b>Minimal Litter</b></p> <p>Virtually no litter or some blown litter can be observed in the sub-area being scored. Any litter seen could be quickly collected by one individual.</p>
2	<p><b>Slightly Littered</b></p> <p>Less than three litter items per square metre or one or two dumping items can be observed in the sub-area being scored. The litter in the sub-area could be collected by one or two individuals in a short period of time.</p>
3	<p><b>Littered</b></p> <p>Between four to 10 litter items per square metre or three to five dumping items can be observed in the sub-area being scored.</p>
4	<p><b>Extremely Littered</b></p> <p>More than 10 litter items per square metre, more than five dumping items or large quantities of dumping items requiring equipment and/or extra manpower for removal.</p>

**Security Issues**

On the back of the form, note security or safety issues such as:

- Broken fencing
- Graffiti
- Evidence of squatters on public property
- Evidence of illicit activity on public property
- Hazards to personal safety

## **The Crown Point Railway Neighbourhood Process**

The Crown Point Railway Neighbourhood pilot public education program to affect positive behaviours and prevent litter, illegal dumping and security issues on properties abutting railway lands was based on the Keep America Beautiful Five-Step Attitude Change Process (get the facts, involve the people, plan systematically, focus on results and provide positive reinforcement) and the development of behaviour-focused sustainable solutions using Dr. D. McKenzie-Mohr’s Community Based Social Marketing (CBSM) methodology (selecting behaviours, identifying barriers and benefits, developing strategies and piloting a program).

### **Research and data collection**

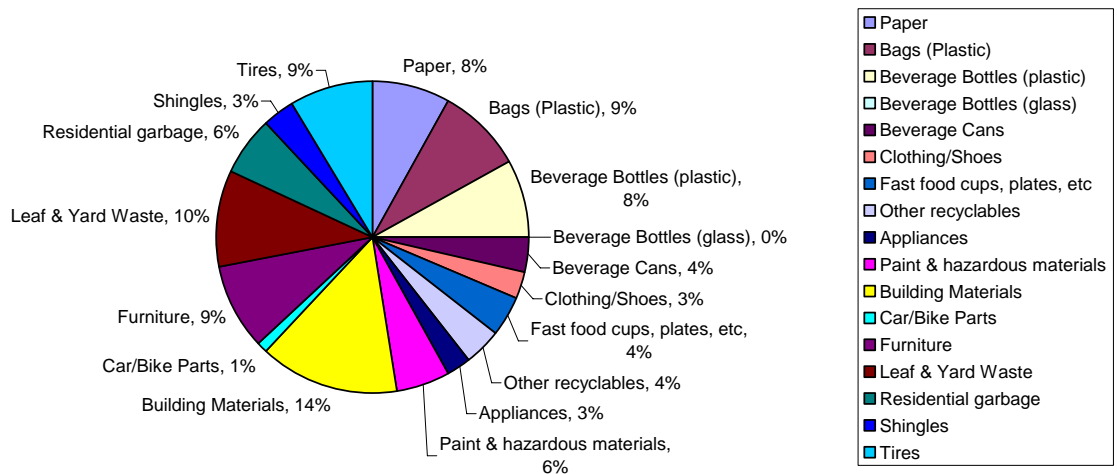
Staff began the process by consulting with CN Railway officials, Municipal Law Enforcement, Councillors’ staff and Operations & Waste Management staff to gather historical information on litter, illegal dumping and security issues in the pilot area. On-line research was undertaken and consultation with Keep America Beautiful affiliates on best practices related to litter and illegal dumping along railway lands across the United States. Social marketing best practices, case and initiatives on illegal dumping and “fly-tipping” were researched through a comprehensive international sustainable behaviour database and network.

To ensure relevance to the neighbourhood issues, staff undertook a comprehensive dumping and security survey of the lands abutting the CN Rail line between Ottawa Street and Parkdale Avenue in April 2011. Staff developed a Dumping and Security Survey tool adapting litter reporting tools created for the KAB Community Appearance Index and the Vancouver Aquarium’s Great Canadian Shoreline Cleanup. The tool uses a five-point scale for measuring debris with “0” scored as “No litter” to a “4” scored as “Extremely Littered.” Security issues are noted on the reverse of the form (see Scoring Scale attached as Appendix “B” to Report PW10084a).

The pilot area (properties abutting the CN Rail tracks between Parkdale Avenue and Ottawa Street) was divided into nine sub-areas on the south side of the tracks and four sub-areas on the north side of the tracks corresponding to the city blocks along the rail siding. Each area was surveyed and scored for litter and security issues using the five-point scale.

As Figure 1 shows, the detailed inventory of materials found in this area were of greatest volume and incidence in the construction materials (14%) and leaf and yard waste (10%) categories followed by bulk waste items (tires and furniture – 9% each).

**Percent type of garbage**



**Figure 1** – Materials found by type from Dumping and Security Survey Tool used in the Railway Neighbourhood Green Team pilot project.

The quantity and volume of construction debris and leaf and yard waste suggests that the material was brought into the area by vehicle. Resident accounts of alleged contractor dumping confirm this assumption.

Security breaches were evident at various locations where pedestrians cross the railway tracks. Of particular note were two areas of broken chain link fence behind the Centre on Barton (former Centre Mall) with trails on CN property that meet up with municipally owned open space on the north side of the tracks.

The Dumping and Security Survey tool was used to collect data which helped in the identification of behaviours and provided hard data for the basis of a community-based social marketing program.

Additional data and information was provided through an environmental survey and an analysis of bulk waste bookings.

The environmental survey revealed that empty paint cans, pharmaceuticals and plastic containers of unidentified fluids were observed during the Dumping and Security Survey. Residents have recounted incidents of dumped motor oil and other hazardous wastes in the pilot area.

Vegetation in the area between the railway siding and alleyways along the south side of Strathearne Avenue to Division Street provides a natural visual barrier between the residences and the railway line and industry on the north side. However, the brush, vines and long grass growth hides much of the dumped material and provides a visual screen for illegal or inappropriate activity. A City Forestry Investigator inspected the area in early May 2011 and confirmed that the area is populated by relatively young (20- to 30-year-old) trees and shrubbery that provide noise and dust abatement from the

train traffic as well as a visual buffer. No endangered species of trees were found. It was recommended that the area be cleaned of refuse to allow continued natural regeneration of the native species.

An analysis of bulk bookings was also undertaken. Appropriate disposal of bulk items using the City's free services to residents is a desired behaviour. Analysis of residential bookings for bulk waste collection show relatively consistent annual bookings since 2007 at approximately 9 per cent of the Ward 4 population. Neighbouring Ward 3 shows a consistent 11 per cent per capita of the Ward population have annually used the City's bulk waste collection booking service since 2007. Operations & Waste Management Outreach staff will explore strategies to increase Ward 4 bulk collections bookings in 2012 to meet or exceed Ward 3's 11 per cent annual average. This would result in a goal of increasing bulk collection bookings to 3,900 in 2012.

### **Stakeholder engagement**

On May 9, 2011, a neighbourhood stakeholders' session was facilitated by Operations & Waste Management staff to introduce the litter, illegal dumping and security issues and to solicit resident and business stakeholders in developing a social marketing pilot program. Representation included neighbourhood residents, Boys and Girls Club of Hamilton, Crown Point Community Planning Team, Hamilton Police Service, Clean City Liaison Committee and Centre on Barton along with CN Rail, City staff (Public Works and Municipal Law Enforcement) and Councillor Merulla. Photographs and data from the dumping and security survey were presented. The group also participated in an exercise to identify desirable and undesirable behaviours that could have precipitated the dumping and security issues in the area, the results of which are as follows:

Desirable behaviours to combat illegal dumping:

- Neighbours reporting illegal dumping
- Residents' use of City services for leaf and yard waste and bulk items disposal
- Appropriate disposal of contractors' leaf and yard waste and construction debris.

Barriers to these behaviours include:

- Perception that there's no follow-up on illegal dumping complaints
- Perception that all bulk items must be taken to a Transfer Station where a fee for disposal is applied
- Perception that leaf and yard waste dumping won't hurt the environment
- Assumed that contractors want to avoid disposal fees at Transfer Stations

Desirable behaviours to address security and trespassing concerns:

- Crossing tracks at Kenilworth
- Crossing at Ottawa from McAnaulty

Barriers to these behaviours include:

- Crossings at Ottawa Street and Kenilworth Avenue are perceived as a long way to get to for seniors and students who live in the middle of the residential neighbourhood to the north of the CN Rail tracks who need to access stores, banks and schools on the south side of the tracks.
- Kenilworth underpass is narrow, not well lit and floods often. Access from McAnaulty is not accessible to wheelchairs and strollers due to stairs.
- Pedestrian safety concerns of vehicles turning from Beach Road onto Ottawa Street.

- Walkway connection from McAnaulty to Ottawa Street is perceived as unsafe, particularly at night.

The neighbourhood stakeholders' group also supported staff's recommendation to undertake a community cleanup of the pilot area. Apart from the primary objective of cleaning up the debris so as not to attract further dumping, the secondary objective was to create a community event that would allow organizers and staff to solicit information and opinions from neighbours and business property owners to help identify the sources of the illegally dumped materials

In advance of the community cleanup, Roads Maintenance staff cleared debris and brush from the alleyway parallel to the railway tracks on the south side between Strathearne Avenue and Division Street. Due to the amount of dumping and vegetative overgrowth along and abutting these alleyways, Roads crews used heavy equipment over a span of three days and removed several truck loads of material to remediate the area. Labour and materials costs to the Roads Maintenance section exceeded \$9,800 not including tipping fees for disposal of the material.

A community cleanup was conducted on June 18, 2011 with the assistance of CN Rail staff and CN Police. Coordinated by Crown Point community residents, local businesses – Union Gas, Wasteco and Coca-Cola Bottling – donated services and product for the event. A small number of volunteers participated in the cleanup of a portion of the area (Strathearne Avenue to Division Street on the south side of the tracks and the terminus of Agincourt Avenue and Holly Street on the north side of the tracks) but succeeded in collecting 3.47 tonnes of debris. The value of volunteer time, in-kind donations, promotion, rentals and salaries (excluding CN staff) for this community cleanup is estimated at \$3,500.

### **Pilot strategies**

A follow-up meeting with the neighbourhood stakeholders took place on August 17, 2011 to address the illegal dumping issues in the pilot area. Staff provided an update on progress to-date, data and information collected, and a review of the community cleanup. The group supported the development of pilot strategies aimed at preventing illegal dumping which included the closure and sale of the assumed alleyways on the south side of the CN Rail tracks, and a neighbourhood and electronic surveillance program.

The neighbourhood stakeholders recommended that the security issues along the railway line be addressed separately. The stakeholders further recommended that, in collaboration with CN Rail, the City of Hamilton and neighbourhood businesses, engineering and technical solutions be explored with north/south pedestrian movement requirements in mind. With CN Rail's assistance, staff is exploring Transport Canada processes and policies that will help generate options for safe pedestrian rail crossings for stakeholder discussion beginning early in 2012.