



## Action Plan for Sustainable Practices — Implementation Strategies for the Residential and Business Sectors in the Greater Toronto Area

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Prepared for:



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## **EXECUTIVE SUMMARY**

With the goal of protecting the health and long-term viability of the Humber, Don and Rouge watersheds, the Toronto Region Conservation Authority (TRCA) undertook a marketing study to identify opportunities and barriers relating to lot-level stormwater management and naturalisation in the residential and business sectors.

The TRCA established an Advisory Committee with representatives from area municipalities, the federal government, Canada Mortgage and Housing Corporation, Rouge Park, watershed councils, and TRCA staff to help guide the project. The principal objective of the research was to develop an action plan to drive uptake of sustainable practices amongst owners of single-family homes and building owners and managers in the commercial and light industrial (heretofore referred to as “business”) sectors.

### ***Project Description and Methodology***

Prior to commencing the market research, a workshop was held with area municipal and environmental organizations. Information collected at the workshop was used to scope the extent and content of the research to be undertaken in both the residential and business sectors. At the workshop, municipal and ENGO representatives were taken through an interactive questionnaire and discussion to identify, from their perspective, the opportunities and barriers to on-site stormwater management in the residential and business sectors and potential strategies to foster sustainable practices in these sectors.

### **Research – Residential sector**

Research with owner-occupants of single-family dwellings in the Humber, Don and Rouge watersheds was undertaken in target geographical areas. The areas for the research were identified by the Advisory Committee. Five areas – Brampton, Vaughan-Woodbridge, Thornhill-Richmond Hill, Markham-Unionville and North Toronto (Don Mills area) were selected.

Using 2001 Statistics Canada population census data, demographic profiles were developed for the study areas. The profiles were used to develop recruitment screeners – a series of questions asked of the resident over the phone by the recruiter to ensure that the total sample of residents recruited match as closely as possible the demographic profile for the study area. (see Appendix II for a copy of the generic screener which was customized for each study area). Low density housing areas were identified in the study zones and street borders were drawn around the study areas. Residents were randomly recruited from within the borders and recruitment was done via telephone.

A questionnaire with both closed- and open-ended questions was used to guide participants through an interactive inquiry process. At each of the five research sessions, 20 to 25 participants were asked 124 written response questions (see Appendix III for the Facilitator’s copy of the questionnaire). The questionnaire process allowed for an exploration of residents’ motivations and intrinsically held beliefs regarding their home and surrounding landscape. This assessment is necessary in order to identify the opportunities for, and barriers to, sustainable practices amongst

residents and to develop strategies and initiatives to capitalise on the opportunities and overcome the barriers.

## **Research – Business sector**

Subsequent to the residential sector research, interviews were conducted with key informants in the business sector – building owners/managers, architects, landscape architects, civil and mechanical engineers and stormwater management specialists.  
Action Plan for Sustainable Practices

The initial focus of the research was box stores and light industrial facilities with large roof and parking areas. Given the similarities in the opportunities and barriers identified by key informants in the box store/light industrial sector, in consultation with the Advisory Committee, it was decided to expand the research to include other commercial facilities. Office towers, condominiums and large facility projects were included in the research.

## ***Research Findings***

Data collected from both the residential and business sector research were compiled and analysed. As different processes for capturing market information were used for the residential and business sector research, different methods of analysis were employed.

## **Research Findings – Residential sector**

Common themes emerged from the research session with residents. There was a high degree of consistency in the responses provided by residents across the five study areas. For a more detailed description of the results from the residential sector research, refer to Section 5.0. The most significant findings from the research with residents can be summarised as follows:

1. A significant barrier to homeowners' uptake of sustainable practices is a deeply held aesthetic motivation that is based on a definition of a beautiful landscape as one with:
  - a manicured, green, weed-free lawn;
  - lots of colour, primarily provided by flowers (principally annuals);
  - a neat, tidy appearance; and,
  - good design and an organized, structured layout.

This underlying aesthetic motivation leads homeowners to unsustainable practices, such as cutting their turf grass too short and excessively watering their lawns and gardens.

2. The terms “naturalised” landscape and “native” plant have a generally negative connotation to most residents. In general, the majority of residents perceive a naturalised landscape as uncontrolled and lacking design and structure.
3. With competing lifestyle priorities, most residents allocate little time or have limited interest in such considerations as sustainable practices. Compounding the little attention given by homeowners to sustainable practices are the many varied and sometimes mixed messages they receive about the environment, which in turn creates confusion leading to disinterest and apathy.
4. A finding of significance to the design of marketing materials is the reversal of participants' opinions about naturalised landscapes upon seeing photos depicting neat and well designed partially naturalised residential landscapes. In

- other words, residents' negative views of naturalised landscapes were readily addressed using images that challenged their misperceptions.
5. There was a statistically significant consistency in those landscape elements and features that participants cited as important to their homes' landscape, principally:
    - Neat and tidy appearance
    - Well designed (traditional, structured layout)
    - Flower gardens for colour
    - Trees for shade and aesthetic value
  6. Residents respondents were generally supportive of reusing rainwater for irrigation.

## **Research Findings – Business sector**

Interviews were conducted to identify on-site stormwater management marketing barriers and opportunities in the business sector. Key informants identified many barriers to on-site stormwater management, most of which had little to do with marketing. Generally speaking, most informants identified barriers pertaining to finance and budgetary approaches, policies and regulations, and limited organisational capacity and expertise. For a more detailed summary of the findings from the key informant interviews in the business sector, refer to Section 6.2.

Key informants who were interviewed represent a variety of disciplines associated with the design, construction and operation of commercial and light industrial facilities, including on-site stormwater management and green building. The findings and recommendations set out in this Action Plan are a compilation of the expert opinions and insights of these individuals.

Significant findings from the interviews with key informants in the business sector are summarized below:

1. Municipalities' efforts in planning and approvals are focused primarily on compliance with building code requirements and not on enhanced (beyond regulation) on-site stormwater management and green building. Although several municipalities in the GTA, specifically Toronto, are making headway in green construction, much needs to be done to facilitate greater uptake by building owners/managers/developers.
2. Capital cost, function and municipal approvals are the principal drivers for the design of buildings and on-site stormwater management systems in the business sector.
3. Many building owners/managers are willing to invest more capital to construct "greener" buildings provided they would secure expedited approvals from the municipality in return.
4. Green building and enhanced stormwater management in private sector buildings is primarily driven by two factors:
  - A decision on the part of the builder/developer to build a "green building" because of a personal commitment to the environment and/or as a marketing feature.
  - A municipal incentive (e.g., change zoning to increase density in exchange for green features in construction) and/or requirement (usually

due to an existing limitation such as sensitive watershed prone to flooding) for enhanced stormwater management.

5. Most builders/developers do not give significant consideration to operational costs when designing a building and surrounding site. Carrying and construction costs are the principal drivers, with enhanced stormwater management technologies or other green technologies which have longer-term paybacks often not considered.
6. In buildings where there is approximately a one-to-one ratio of floor to ceiling space, such as box stores and light industrial facilities, green roofs do not make economic sense.
7. Municipal stormwater management fees are sufficiently low as to not serve as a motivator for enhanced stormwater retrofits or new construction – there is too long a payback for most business owners/managers to consider enhanced stormwater management systems (for operational cost savings alone).
8. Lack of guiding policies and regulations, misperceptions (societal and within public institutions), and builder/owner/developer concerns over liability limit the use of surface water features for rainwater collection and infiltration, such as constructed, decorative streams, or ornamental infiltration ponds (common site design features in many European cities).

## ***Recommendations***

Numerous marketing strategies to reach the single-family residential market were developed based on the research with resident respondents. A broader marketing outreach strategy was developed to help facilitate uptake of enhanced stormwater management and sustainable practices in the business sector, but more study into the non-marketing related barriers to green building in the GTA should be undertaken.

## **Recommendations – Residential sector**

The key recommendations coming out of the market research with residents of single-family dwellings in the five study areas are summarized below. As the findings indicate, at present the vast majority of residents are not yet ready to embrace lot-level stormwater management technologies such as green roofs and cisterns. However, the findings from the residential research clearly indicate that a marketing program focused on incremental landscape naturalisation and landscape enhancements to reduce runoff, such as dry beds for swales, increased canopy cover through more tree planting and the use of porous surfaces (flagstone, gravel, slated wood decking, etc) and mulch, would be effective. For a more detailed discussion of the recommendations, refer to Section 7.1.

The primary recommendation for marketing naturalisation and other sustainable practices to residents of single-family dwellings is to ultimately deliver a universal, GTA-wide marketing program. This approach:

- Allows for pooling of marketing resources and thereby, the delivery of marketing programs that achieve greater market penetration.
- Ensures consistency in sustainable practices messages (and avoids confusing and/or conflicting messages from different programs/approaches).

- Enables the development of specialised marketing initiatives targeting a watershed or multiple watersheds.

Phasing the implementation of the marketing program is also recommended. Phasing the marketing program will enable the TRCA and area municipalities to:

- start small and build as resources permit;
- trouble shoot the program on a smaller scale before rolling out a full GTA-wide program;
- develop strategic partnerships with key stakeholders as the program evolves;
- capitalise on economies of scale as the program grows to further reduce program costs on a per capita basis; and
- monitor and evaluate the marketing program and ensure it continues to meet targets and is modified or adjusted as required.

The key components of the recommended marketing program targeting the single-family residential sector are:

### **1. Messages and positioning:**

In order to effectively engage residents, it is recommended that a multi-media marketing campaign be implemented. The campaign would include outdoor signage at key locations; print, television, radio and newspaper advertising; and a direct mail initiative.

Initial campaign messages would focus on dispelling residents negative perceptions of naturalized landscapes by utilising simple messages in combination with full colour images of beautiful, well designed residential naturalised landscapes.

### **2. Strategic partnerships:**

Partnerships and joint marketing initiatives with key stakeholders – municipalities, community and environmental organisations, box retailers (specifically Home Depot and Canadian Tire – the most frequently cited retailers visited by homeowners for lawn care products) and garden centres/nurseries (the most frequently cited retailers visited by homeowners for garden and related products and services).

By working co-operatively with key stakeholders, the TRCA will achieve greater market penetration and will be able to capitalise on the experience and expertise of major retailers.

### **3. Marketing products/resources:**

A consistent “look and feel” will need to be developed for all marketing resources to support the outreach campaign and the residential landscape advisory service (as discussed below). Full colour posters, advertising in appropriate newspapers and magazines with ads that echo the posters, and direct mail piece that reinforces the poster and advertising initiative will help dispel the negative image many residents have of naturalised landscapes.

Informational resources will need to be developed to augment the landscape advisory service and promotional coupons with participating retailers will help drive residents' purchases of more sustainable landscape related products.

#### **4. Marketing vehicles:**

A landscape advisory service that works directly with homeowners to show them how to naturalise some or all of their landscape and/or adopt other sustainable elements such as rain or rock gardens, canopy cover through strategic planting of trees, and laying of pervious hardscapes will help residents begin the process of moving toward a more naturalised landscape and/or one that reduces run-off by facilitating greater infiltration.

Displays at key municipal locations and at participating retailers, naturalised and sustainable landscaping/gardening workshops for residents, demonstration projects at municipal locations and equally important, at single-family residents in target areas, native plant garden competitions through Communities in Bloom or local garden clubs, a web site with hands-on landscaping and gardening design tools and information and articles and advertising in local area papers are some of the recommended vehicles for marketing the sustainable practices program.

#### **5. Demonstration sites:**

Participating municipalities and other stakeholder partners should be encouraged to demonstrate naturalised landscapes and/or infiltration landscaping features (such as rain gardens, porous landscaping surfaces, etc.) at a highly visible location on their property.

TRCA in partnership with municipalities and retailers should offer an incentive or a partial/full subsidy program to secure residential demonstration projects in key areas throughout the GTA.

Of importance to the success of the demonstration initiatives as a market driver is sufficient promotion and profiling of the demonstration sites through media, garden clubs and tours, churches and other community-based organisation, municipal newsletters, utility bill inserts, etc.

### **Recommendations – Business sector**

Prior to discussing the marketing-communications and outreach recommendations for engaging the business community and related stakeholders, it is important to reiterate the need for additional research into the non-marketing barriers to sustainable development in the commercial sector.<sup>1</sup> To this end, and in order to develop an implementation plan that is appropriately focused on the non-marketing issues that can be effectively addressed in a reasonable timeframe (i.e., it is unlikely that pursuing

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<sup>1</sup> Significant research on mechanisms and processes to encourage sustainable practices and green building in the business sector has already been undertaken. A review of the following reports is recommended as part of the additional research into non-marketing related barriers: Green Value: Green buildings, growing assets – Case Studies; Green Roofs Initiative; and City of Toronto Green Development Standard – Phase 1, as referenced in Appendix VIII.

changes to the provincial building code would be an effective strategy over the short-term), it is recommended that the TRCA host one or more joint sustainable practices strategy session(s). The strategy session(s) would bring together experts in on-site stormwater management and green building; including architects, engineers, landscape architects, stormwater management specialists and builders/developers; senior municipal representatives (from policy, planning and approvals and works); and other key stakeholder representatives. The goal of the strategy session(s) would be to identify priority issues which can be effectively addressed over in the near term, and to help formulate a strategic approach.

In terms of marketing strategies to address informational barriers in the business sector, the principal recommendation to encourage uptake of enhanced stormwater management systems and practices is the establishment of a GTA Centre for Sustainable Technologies. This would be a virtual centre operated in co-operation with stakeholder experts – individuals and their organisations with expertise in enhanced stormwater management technologies, site design, construction/retrofitting, green construction/renovation, sustainable landscaping and municipal planning and approvals. The centre would serve as an information hub, a one-stop electronic shop for information, resources and referrals on sustainable practices and green building.

The TRCA is strongly encouraged to work with stakeholders to deliver the marketing and outreach program to the business sector and municipalities. Co-operative ventures and partnerships with key stakeholders will enhance the credibility of any outreach initiative, maximise the market penetration, reduce delivery costs and develop a co-operative approach to sustainable commercial development in the GTA.

The remaining marketing-communications and outreach recommendations for fostering sustainable practices – enhanced on-site stormwater management, rain water reuse, and green building in general – are summarised as follows:

1. Educational outreach to municipal planning and approvals staff through the provision of a guidebook with a step-by-step checklist of sustainable practices supported by a one day workshop to help facilitate use of the guidebook and explore the topic in more detail. Consideration should be given to the establishment, through a partnership with community colleges and the Ontario Professional Planners Institute; of a stormwater management accreditation or certification program for municipal planning and approvals staff (further research into the viability of this option needs to be undertaken).
2. Demonstration projects and case studies should be promoted where they exist and new demonstration projects secured. There are several excellent examples of enhanced stormwater management systems at GTA buildings, these need to be given a higher profile in the business sector and amongst key decision-makers in municipalities – mayors and councilors, relevant municipal commissioners, senior policy makers and planning and approvals staff.
3. Establish a “leaders in sustainable practices” award in co-operation with one or more high profile stakeholders. To ensure the success and viability of the awards program proper design and promotion is required. The support and endorsement of GTA mayors and councilors should be secured and program partners and sponsors identified and secured. A media strategy, identification of a high profile spokesperson, determination of an associated conference or

- special event for the ceremony, etc. are all facets of the award program that will need to be addressed.
4. In conjunction with the awards program, establish a sustainable practices business leaders program. Securing the participation of key business leaders for the program and utilising these leaders as program spokespeople will effectively and credibly get the message out to the business sector.
  5. Establish a sustainable practices business outreach program. This program would be delivered in conjunction with the corporate leaders and sustainable practices awards programs and would target decision-makers in the business community.