

Appendix A

CASE STUDIES



Alton Village Low Impact Development Marketing Strategy

Location: Alton Village
Implemented: 2013



Residential Lands

Project Objectives and Design

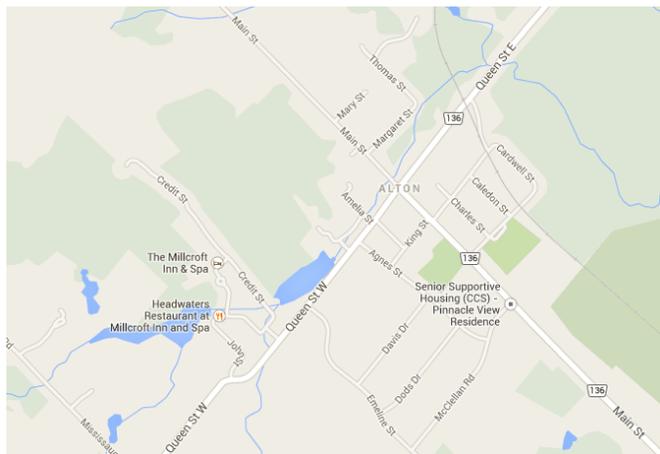
- Improve stormwater management and water conservation in the Village of Alton by encouraging the uptake of low impact development (LID) on residential properties.
- Protect local water sources by treating and reducing runoff flowing into Shaw's Creek.
- Develop a marketing strategy that creates homeowner desire for alternative landscapes that include LID.
- Initiate marketing and outreach programs based on market research, including an interactive *Ask a Designer Night*, and construction of demonstration sites.

Overcoming Barriers and Lessons Learned

- A limited market research budget was available to develop the marketing strategy. To address this issue, secondary market research was verified through meetings with community leaders and Town of Caledon staff.
- Ensuring open lines of communication with key project stakeholders and building positive word-of-mouth within the community is a critical component of ensuring the success of projects relying upon resident uptake.
- Partnering with organizations already operating within the target area is an excellent way to tap into existing knowledge and expertise and reduce marketing and implementation costs.

Overview

Alton Village is part of the Town of Caledon, located just southwest of the Town of Orangeville. The Village has 1,030 households, 640 of which are single-family households. A large portion of Alton is residential, and it has limited commercial lands.



Alton Village is located in the Town of Caledon, in the headwaters of the Credit River Watershed (map © Google)

The Alton Village Study – Environmental Management Report (2012) highlighted the need for low impact development (LID) implementation to improve stormwater management and help protect Shaw's Creek. In 2012, Credit Valley Conservation (CVC) began to look at ways to implement LID in the Village of Alton. During 2012 and into early 2013, CVC developed a marketing strategy to encourage residents of single-family homes to use LID practices on their properties. The marketing strategy aimed to create interest in LID and water-efficient landscapes amongst residents through visually-focused materials, simple messaging, community engagement, retailer participation, and demonstration landscapes for homes and community sites.

Goals and Drivers

The goals and drivers for the Alton Village marketing strategy included:

- A need to improve stormwater management and water conservation within the Village of Alton
- Protection of Shaw's Creek
- Initiate marketing and outreach programs that engage residents, build their interest in alternative landscapes and ultimately drive uptake
- Identify and engage key stakeholders that directly influence the attitudes and practices of homeowners
- Partner with the Town of Caledon and the Region of Peel to share lessons learned and facilitate broader rollout of the program

Successes

Innovative project – An effective marketing approach was developed for a small town or village with limited budget.

Joint partnership – A partnership was formed between two major stakeholders: the Town of Caledon and the Region of Peel. This partnership helped deliver the Fusion Landscaping® program with an integrated LID component.

Project Fundraising – CVC, Town of Caledon, Peel District School Board, and residents of Alton Village were successful in acquiring project funding from Shell FuellingChange™ and the RBC Blue Water Project.

Overcoming Barriers and Lessons Learned

As this was the first time CVC had implemented a residential LID marketing strategy, a number of issues and barriers were encountered. Some of the barriers the project team encountered include:

- Residents of the village had negative perceptions and lack of knowledge regarding water efficient landscaping and low impact development
- A limited budget for the development of a marketing strategy restricted the amount of market research
- Building consensus among project partners and Alton community representatives on the development and rollout of a marketing strategy was a challenge

Approaches that helped address these barriers:

- To shift negative perceptions, CVC staff met with community representatives and groups to discuss community concerns, ways to engage residents, and best approaches for implementing LID in Alton Village
- Secondary market research data, along with meeting with Town of Caledon staff, Alton community leaders, organizations, and businesses, was a cost-effective solution for acquiring market research. This information assisted with marketing strategy development and helped to inform the initial stages of the plan's rollout.
- The marketing team created engaging visuals and replicated messages with advertisements to encourage residents to attend events

Lessons the project team learned:

- In a small community such as Alton Village, word-of-mouth is a critical component of success
- Community partnership can help save project costs and increase uptake amongst residents

Demographics

Statistics Canada Census data (2006) was used to develop a demographic profile of single-family homeowners in Alton Village. Owner-occupants of single-family detached homes represent a sub-sector of the residential market and they were selected for a few reasons:

- In the residential sector, single-family homes have the largest impact on stormwater runoff on a per unit basis
- The majority of residences in Alton Village are single-family dwellings
- Owner-occupants are responsible for making decisions about their home and landscape

The single-family homeowner demographic in Alton Village is, to a statistically significant degree, unique to Alton Village and not reflective of the single-family homeowner demographic typically found in many Greater Toronto Area (GTA) communities. Both the education and income levels of single-family homeowners in Alton Village differ significantly from single-family homeowners in the Greater Toronto Area. Refer to the *Village of Alton Demographic Profile Table* located at the end of this case study for a summary description of the demographic variables of single-family households and “other” (multi-family households) in Alton Village.

The unique demographic of homeowners in Alton Village presented both a challenge and an opportunity. The challenge was to design a marketing strategy that resonates with homeowners without primary research about their motivations and perspectives. Conversely, this unique demographic provided an opportunity to test messages, images and approaches to securing homeowners’ uptake of landscaping that incorporated low impact development. See the *Village of Alton Demographic Profile Table* at the end of the case study for demographic profile of Alton.

Key Facts

Issues

- A limited budget was available to design and implement a marketing strategy for the Alton Village.
- The marketing strategy had to overcome the negative perceptions held by residents about low impact development and water efficient landscapes.

Solutions and Lessons Learned

- Demographics of Alton combined with secondary market research provided the framework for the initial marketing strategy that was proposed to representative from the Alton community. These representatives provided feedback and the plan was adjusted accordingly.
- Grants provided additional funding for demonstration sites.
- The marketing strategy focused on the aesthetic appeal of LID landscaping rather than the environmental benefits. Appealing to the emotions of residents helped to overcome negative perceptions.

Design / Development of LID Plan and Marketing Strategy

Assumptions

When designing the marketing strategy, the team made certain assumptions. Despite the demographic differences, the marketing strategy would draw on the primary findings of previous market research involving single-family homeowners in other GTA communities. The rationale for this decision came from a meeting with community association representatives (also homeowners in Alton), who responded favourably to initial concepts and approaches presented prior to the development of the marketing strategy.

In addition, the GTA market research studies consistently found that homeowners had an emotional connection to the home’s landscape—it was found to be a source of beauty and pride. Project partners agreed that homeowners in Alton likely shared such emotions and that the marketing strategy should reflect this assumption. However, the strategy also allowed for testing and evaluation of residents’ responses throughout the implementation process.

Secondary Research

Beginning in 2005, marketing studies about single-family homeowners’ perception, values and beliefs regarding their homes’ landscapes and their understanding of related concepts were conducted across the GTA over a four-year period.

The next section discusses the major themes that emerged from these research studies. These themes form, in part, the basis for the Alton Village marketing strategy.

Market Research Themes

Homeowners asked about the meaning of their home's landscape expressed that it was important for it to be beautiful, well-kept and provide "curb appeal." Furthermore, they described their home landscape as a source of pride, a place to entertain family and friends, and an "oasis" away from their busy lives.

Almost universally, respondents held negative perceptions of alternative landscape concepts, such as "naturalized," "sustainable" or "water-efficient," viewing such landscapes as far from their "ideal" and therefore, would not consider making these types of changes to their own home landscape. However, when shown photographs of alternative landscapes that were attractive and met the "traditional" view of an aesthetically pleasing landscape, about 80% of respondents consistently indicated they would be willing to make such changes to their own home landscape.

The primary sources of trusted advice and services pertaining to landscape design and maintenance are garden centres and nurseries followed by design magazines, family, friends, neighbours and landscape contractors.

Implications for Market Research

The major themes from the market research of single-family homeowners in the GTA informed the design of the Alton Village marketing strategy. The primary implications:

- To be successful, the marketing program for alternative landscaping and lot-level stormwater control and water conservation needs to tap into homeowners' strong emotional connection to the aesthetics of their homes' landscape. To achieve this feeling, the team focused on the aesthetic value of alternative landscapes rather than the functional (water conservation and stormwater control) aspects.
- Use terms such as beautiful, oasis, sanctuary, vibrant, colourful, lush and retreat to describe alternative landscapes. Avoid terminology such as native plants, permeable surfaces, rain gardens, water efficiency, or other technical terms. With this knowledge in mind, "Fusion Landscaping®", a Region of Peel initiative, was marketed to homeowners. Fusion Landscaping® is defined as a landscaping trend that fuses traditional approaches with new, dynamic designs to create beautiful, eco-friendly landscapes.
- Local retailers and community stakeholders were engaged to help deliver key program messages and specific elements of resident engagement.

Field Reconnaissance / Benchmarking

Field reconnaissance is a critical component of any LID project. During the initial stages of the Alton project, CVC staff walked the streets of Alton and photographed both significant features within the town (e.g. town square, parks, schools) and residential landscaping. Photographs were organized corresponding with representative postal codes. Along with pictures, the team noted the age of the neighbourhood, downspout disconnection, the size of driveways, the size of front yards, the presence of trees, sidewalks, and general property condition.



Alton Postal Code Map



Homes in this area were mixed one and two-storey single-family detached, with age of neighbourhoods ranging from approximately 50-150 years old. All downspouts were found to be disconnected, but some lots had negative drainage towards homes. Driveways and roads were average condition.

By photographing existing landscaping, CVC got a better understanding of the types of landscape features that residents of Alton not only liked, but also the types of LID features that could be incorporated into a front yard. At the same time, the photo inventory acted as a benchmark to determine any impact that the marketing strategy might have on residential landscapes. Thus, monitoring of Alton Village will be ongoing.

Preliminary Community Feedback

Prior to the launch of an LID program in Alton Village, CVC arranged a preliminary meeting with contacted key local stakeholders. The meeting held on November 22, 2012, included representatives from:

- Alton Grange Association
- Alton Village Association
- Alton Mill
- Hills Arts Association
- Alton Public School
- Peel District School Board
- Royal Canadian Legion
- Botanix Alton Green House and Garden Centre
- Wilki Landscaping
- Alton Scout Troop

Meeting participants provided valuable insights and suggestions about implementing the residential LID project in the community of Alton. The feedback from the preliminary meeting further informed the marketing strategy and the future engagement of the community by CVC staff and program partners. In addition, it offered CVC an opportunity to gather comments on visuals and draft pamphlet material.

Maintaining strong ties with community groups and leaders after the preliminary meeting was important. CVC participated in key community events like the Alton Village Town Square Design Meeting and the Alton Village Association’s Community Open House. At the same time, CVC strengthened existing relationships with Peel District School Board (PDSB) and Alton Public School (APS) by presenting to students and the parent council. Outreach efforts with Alton Public School provided potential opportunities to discuss and identify additional LID opportunities and a chance to interact with teachers, parents, and students from the Village of Alton.

Marketing Strategy

With consideration to homeowners’ motivations for designing and maintaining their homes’ landscape, the marketing program focused first on the aesthetic value of alternative landscapes and secondarily on the environmental benefits. Before homeowners make the necessary changes to their landscape, they must first **want** what is being offered. Creating the ‘want’ was the challenge and the main goal of the marketing strategy.

A new landscape aesthetic was packaged and marketed to homeowners using a four-pronged approach comprised of a community engagement initiative, retailer partnerships, visually based outreach, and residential front yard demonstration projects, as illustrated in the following figure.



Marketing strategy for Alton Village

Visually Based Outreach and Key Messages

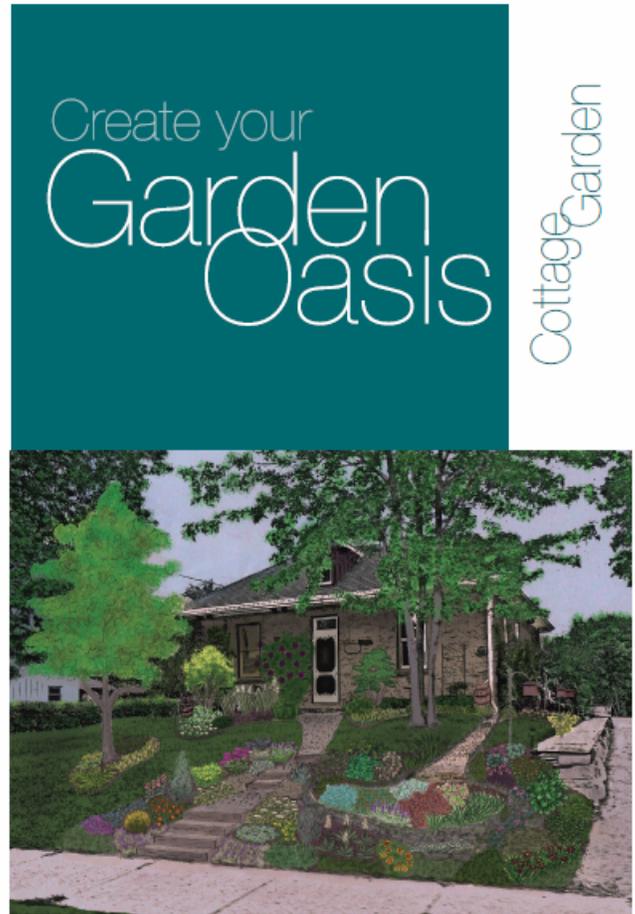
Prior to any public event, CVC had to identify and create appropriate visuals and messaging for the engagement of Alton residents. A significant challenge was overcoming homeowners' negative perception and confusion surrounding LID and water-efficient landscapes and securing their uptake of landscaping that would incorporate LID.



Full-size visual used in CVC's *Ask a Designer Night*

Overcoming that challenge required a shift in how CVC framed LID in outreach and communications with residents. Rather than duplicate Peel's Fusion Landscape® program, CVC collaborated with the Region of Peel's Fusion Landscaping® program to include LID. With this partnership, CVC was able to work in partnership with the existing Fusion branding and avoid duplication.

The Alton marketing strategy adopted a visual campaign focused on the aesthetic appeal of **Fusion Landscaping®**. As a guiding tool, printed resources were used to frame the designer magazine concept for outreach material. Magazines such as the LCBO's *Food and Drink*, *House and Home*, *Home and Garden*, *Renovation Style* and *Style at Home* were all examples of how, stylistically, Fusion Landscaping® was presented to Alton homeowners. As such, visuals were full-colour images of flowers and stunning landscapes accompanied by limited text presented in a stylistic manner.



Pamphlet material used at CVC's *Ask a Designer Night*

The outreach component of the marketing program included in-store posters at local retailers, direct mail, local newspaper advertisements, and displays at local events and will later include outdoor signage at key locations throughout Alton Village.



In the Hills magazine advertisement

The goal of the outreach material distributed throughout Alton was to use simple messages that reflected the important emotions homeowners express when discussing their landscape. “Lush,” “oasis,” “vibrant,” “beautiful,” “inspiring,” “colourful,” “pleasing,” “a beautiful place to entertain family and friends,” “eco-chic,” and “stylish” are examples of prime messages promoted to homeowners.

important to secure the participation of Botanix Alton Greenhouse and Garden Centre, a local retailer. Providing a one-stop-shop for homeowners to purchase necessary plant and landscaping materials and to secure advice and information on Fusion Landscaping® and local growing conditions simplified the process and maintained a local connection.

CVC had several initial conversations with the owner of Botanix Alton Greenhouse & Garden Centre, later followed with a meeting to discuss the Fusion Landscaping® initiative, and future possible events including the *Ask a Designer Night*. The goal of this meeting was to secure the company’s participation. CVC developed and signed a Letter of Agreement outlining the roles and responsibilities of both parties over the duration of the project

As part of the agreement, Botanix had in-store promotions and participated in the *Ask a Designer* event (discussed in the next section). At the event, Botanix provided discount coupons for selected plant stock.



Example of coupon used by Botanix Alton Greenhouse & Garden Centre



Ask a Designer Night postcard sent to residents

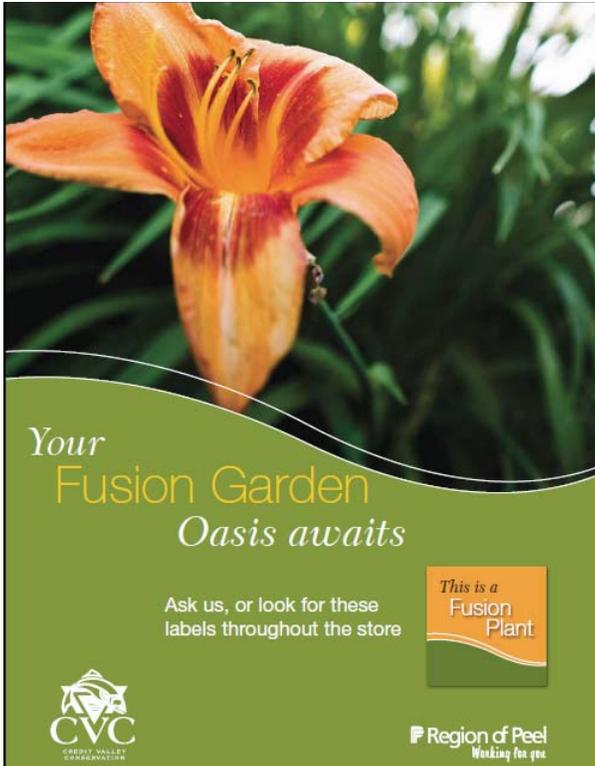
In addition, Botanix displayed signage to highlight the Fusion Landscaping® program and Fusion plant stock. To ensure Botanix staff members were well-versed in the Fusion program including LID, CVC and Region of Peel staff provided training and resources. The Fusion program will continue with Botanix in 2015.



Signs identified Fusion plant stock for customers at Botanix.

Retailer Participation

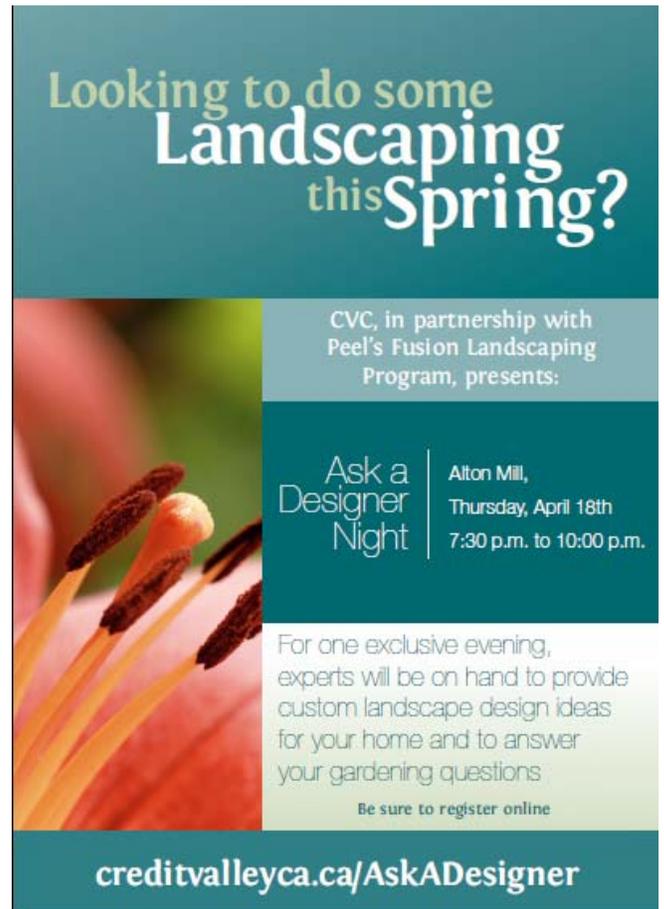
As market research of single-family homeowners in the GTA identified, nurseries and garden centres are perceived as trusted sources of gardening supplies and advice on landscaping. With this knowledge, it was



Fusion Landscaping® Poster used at Botanix.

Other possible future joint initiatives could include Fusion Landscaping® and gardening workshops held at the nursery over the spring-summer planting season and a demonstration garden at the entrance to the store.

Alton Village with an aim to capitalize on resident landscape interest for the upcoming summer season.



Advertisement poster displayed at local retailers

Community group representatives and individual leaders in the community were critical allies in the development of the Ask a Designer Night. CVC worked in particular with the Alton Village Association, Alton Grange Association, Alton Public School, the local Alton Scout Troop, and community business leaders to harness grassroots support for the event. Word-of-mouth was a critical component to success of the event, especially when trying to engage a small community like Alton. Whenever possible, CVC took advantage of community events such as the Alton Mill Pond Hockey Tournament to market the event. In addition, CVC worked with the local Alton Scout Troop to deliver the postcards and outreach material to Alton residents.



Cindy Spaans of Botanix Alton Greenhouse & Garden Centre at the Ask a Designer Night

Community Engagement

To initiate the launch of the program in spring 2013, CVC and its project partners, Region of Peel, Town of Caledon, and Botanix Alton Greenhouse & Garden Centre hosted an *Ask a Designer Night* for residents of

To engage residents during the event, it featured several well-recognized landscape architects and designers. This included Kent Ford of Kent Ford Designs and Sean James of Fern Ridge Landscaping, both of whom have appeared on HGTV and CityTV.



Sean James (left) Kent Ford (right).

The event was located at the Alton Mill Gallery in Alton Village, a central and architecturally significant building. The location was consistent with the aesthetic focus of marketing program.



Alton Mill Venue for Ask a Designer Night

The event provided residents an opportunity to ask questions and discuss ideas about their landscape. There was both a panel discussion and presentations with sample concepts, as well as an opportunity for residents to speak one-on-one with the landscape architects and designers.



Panel discussion and presentation of sample concepts



One-on-one: an Alton resident consults a landscape designer

Region of Peel Fusion Landscape® consultation staff offered no-cost landscape consultations to homeowners and provided them with information on the Region's Fusion Landscaping® program. Attendees of the event also had the opportunity to apply to become a Fusion Landscaping® Showcase Home.



Region of Peel staff discuss Fusion Landscaping® with Alton residents

Landscape Consultations

Following the Ask a Designer Night, CVC, in partnership with the Region of Peel Fusion Landscape® team, delivered Alton homeowners with customized advice on design, plant selection and options and approaches to updating their landscapes.

The consultations provided homeowners with landscape design concepts that met their aesthetic vision. Providing a design that reflected the homeowner's aesthetic vision and functional perspective was critical to the success of the event—otherwise, implementation of these recommendations was unlikely to occur.

Combining form (landscape design) with function (water-efficient and LID) was the focus of all the designs and recommendations.



A Fusion /LID landscape consultation with homeowners

It was important that the landscape consultants determine the homeowners' preferences in terms of structure (formal, cottage, etc), colour, use (entertaining, play area, etc.), vegetation (flowers, shrubs, and trees), and maintenance. Homeowners were left to raise questions about budget, but if they asked, Region of Peel and CVC staff provided a cost range and noted construction can be phased. Residents were advised to go to a landscape contractor of their choice for an accurate quote.

Demonstration Projects

Creating living examples of beautiful, desirable landscapes in high-traffic areas and neighbourhoods is a very effective means adjusting the negative perspective homeowners have toward landscape designs based on effective stormwater management and sustainability.

Establishing residential demonstration sites is an effective means of securing uptake by neighbouring residents. The Clarkson neighbourhood in the City of Mississauga recently employed a similar approach with significant success (see Region of Peel's Fusion Landscaping® Case Study at bealeader.ca). A photographic catalogue of homes in the Clarkson community clearly shows the residents in the area are beginning to mimic the Fusion Landscape® demonstrations. By creating an application process for Alton homeowners to qualify for a front yard makeover and selecting demonstration sites in highly visible locations, the CVC aims to garner interest through the

community and tap into motivators for change, specifically, creating a desired landscape aesthetic. These demonstration sites act like model homes, where residents get a vision of what their home's landscape could resemble. When individuals have a positive emotional response to a landscape design or garden, they have a desire to recreate it for themselves. CVC aimed to foster this primary desire when creating front yard Fusion Landscape® demonstrations with LID.

All Alton residents were invited to submit an application for a front yard landscape makeover. Specific criteria requested in the application form included the location of the septic bed, location of trees, favourite plants, maintenance practices, and a vision for the front yard. Residents understood they would have to sign a legal agreement. Use of the legal agreement narrowed the number of applications submitted. In the end, CVC received two applications to become Fusion Landscaping® showcase homes. Prior to announcing the final selection, CVC negotiated an agreement with both sets of homeowners, which included requirements for homeowners should they be selected to receive one of the landscape makeovers. These requirements included a maintenance agreement; removal of in-ground irrigation systems and no future installation of such systems; and a new landscape on-title. The design of front yard demonstration landscapes were created collaboratively by the landscape architect and the individual homeowners. An installation contractor was selected through a competitive bid process and the installations were scheduled in consultation with the homeowners. Expected completion is Summer 2014.



Landscape consultations with homeowner

Alton Park Demonstration Project

Along with the two demonstration Fusion LID homes, CVC is currently engaged in a Fusion LID demonstration project at Alton Park. The site functions as a community hub due to its proximity to Alton's newly constructed elementary school, library, and only baseball diamond.

To secure funds for the project, CVC applied to Shell FuellingChange™ (fuellingchange.com) for a \$50,000 grant under the Credit River Clean Water program. To involve a greater element of public participation, the FuellingChange™ grant has two stages: a general qualification where CVC was granted \$10,000 and second stage, where each qualifying project is voted on to win the remaining \$ 40,000. To garner support and votes for the project, CVC worked with community groups in Alton and across the Credit River watershed. CVC staff presented at community events, distributed pamphlets, spoke to Alton public school students, teachers, and parent council. CVC was successful and received the additional \$40,000 for the project.

Examples of the promotional materials that were developed by CVC and distributed in the area are provided at the bottom of the page.

To further bring attention to the project and garner greater public involvement, CVC is partnering with EPIC College of Technology to initiate a design competition for the community demonstration Fusion project. The design for the project will be finalized in Spring 2014 with construction to follow in Fall 2014.

Monitoring

As noted earlier, the goal of the marketing strategy was to encourage uptake of low impact development practices within front yard landscapes. Alton Village's small size allows for photo documentation and the ability to track changes of front yard landscapes over time. Monitoring of front yard landscapes will be ongoing with the aim of tracking the effectiveness of the marketing strategy in years to come.



LEFT: The Shell FuellingChange™ pamphlet



RIGHT: Credit River Clean Water campaign poster for Shell FuellingChange

Additional Resources

Market Research and Marketing Strategy: Lot-Level Stormwater Control in the Residential Sector:

www.creditvalleyca.ca/wp-content/uploads/2012/04/Residential-Mrkt-Research-Study-July-08.pdf

Greening Your Ground: A homeowner's guide to Stormwater Landscaping Projects:

www.trca.on.ca/get-involved/stewardship/healthy-yards-program/greening-your-grounds.dot

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- Kent Ford, Kent Ford Designs
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- Stephanie Newall, Alton Scout Troop
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Village of Alton Demographic Profile
(Single-family owner-occupied dwellings compiled from 2006 Statistic Canada Census)

| Demographic Variable | Village of Alton | | |
|---|------------------------|--------------------------|------------|
| | Total – All Households | Single-family Households | Other |
| Total – Households | 1030 | 640 | 390 |
| Owner-occupied dwellings (/Total – All Households) | | 59% | 36% |
| Owned (/Single-family and /Other) | | 95% | 95% |
| Gender of primary household maintainer: Female | | 33% | 31% |
| Male | | 67% | 69% |
| Age of primary household maintainer: | | | |
| 25 to 34 | | 9% | 20% |
| 35 to 44 | | 39% | 26% |
| 45 to 54 | | 24% | 33% |
| 55 to 64 | | 18% | 5% |
| 65 + | | 10% | 16% |
| Total – Household size | | | |
| 2 persons | | 35% | 0% |
| 3 persons | | 16% | 4% |
| 4 persons | | 35% | 9% |
| 5 persons | | 14% | 18% |
| 6 persons | | 0% | 56% |
| Marital status: | | | |
| Married/Cohabitation | | 63% | 40% |
| Single | | 35% | 41% |
| Divorced/Separated/Widowed | | 2% | 19% |
| Age of children living at home: | | | |
| Under 15 years | | 23% | 25% |
| 15 to 19 years | | 7% | 7% |
| 20 to 24 years | | 6% | 3% |
| 25 to 29 years | | 2% | 3% |
| Age of dwelling | | | |
| 1920 or before | | 16% | 49% |
| 1921 – 1945 | | 3% | 0% |
| 1946 - 1960 | | 6% | 12% |
| 1961 - 1980 | | 19% | 9% |
| 1980 – 1990 | | 49% | 48% |
| 1991 – 2000 | | 7% | 24% |
| 2000 – 2006 | | - | 3% |
| Household income: | | | |
| Without employment income | | 38% | 47% |
| >\$30,000 | | 28% | 29% |
| \$30,000 to \$49,999 | | 14% | 14% |
| \$50,000 to \$79,999 | | 12% | 5% |
| \$80,000 or more | | 9% | 5% |
| Education: | | | |
| Less than High School | | 12% | 19% |
| High School Graduate | | 31% | 30% |
| College or Trade Certificate | | 42% | 22% |
| University Graduate or above | | 15% | 5% |
| Place of birth: | | | |
| Canada | | 89% | 82% |
| UK/Europe | | 11% | 15% |
| Other | | - | 3% |
| First official language spoken: | | | |
| French | | 2% | - |
| English | | 98% | 100% |



Region of Peel's Fusion Landscape® Program

Location: Region of Peel

Constructed: 2012-2014



Residential Lands

Project Objectives, Design & Performance

- The Region of Peel's Fusion Landscaping® Program was designed to improve water quality through the introduction of lot level practices that are water efficient and less dependent on fertilizers.
- The program incorporates local market research and social marketing to promote behavioural change, address residents' unique needs, and reduce outdoor water use
- On average, 1,300 Fusion consultations with residents are conducted annually

Overcoming Barriers and Lessons Learned

- An intensified marketing approach was used to increase participation in Fusion Landscape® consultations
- The Region has provided additional tools, support, and continued contact with participants to help ensure residents take action after receiving their Fusion consultation
- Communication materials and program branding were refined to meet both the technical expectations of water efficient landscapes while also meeting aesthetic expectations.

Practices Implemented



Bioretention



Soakaways & Infiltration Gallery

Barriers & Issues Encountered



Planning & Regulations



Operation & Maintenance

Region of Peel's Fusion Landscaping® Program Case Study

Words by Carol Chaput

Overview

Fusion Landscaping® combines the lush splendour of traditional gardens with modern, eco-friendly plants. The Region of Peel's Fusion Landscaping® Program incorporates local market research and uses social marketing to promote behavioural change, address residents' unique needs, and reduce outdoor water use.

Goals and Drivers

The main goal of the program is to support the greater initiative of the Region of Peel to maintain an average peak day ratio of no more than 1.55 as outlined in the 2012 Water Efficiency Strategy. Additional benefits of Fusion Landscape® program include:

- Improved water quality through the introduction of lot level practices that are water efficient and less dependent on fertilizers. This lot level approach provides the most cost-effective, long-term sustainable solution as resources are managed at the source.
- Better management of storm water runoff. By optimizing the use of runoff from driveways and rooftops, the flow of surface water to storm sewers is decreased.



Fusion Landscape® at the Clarkson pilot neighbourhood in Mississauga

Successes

Highlighted achievements of the Fusion Landscaping® program include:

- **Clarkson Pilot Study Neighbourhood** – The Region of Peel selected a study

neighbourhood and several homes to implement demonstration front yard landscapes in 2009. These demonstration landscapes, along with targeted communications in the area, has increased uptake of Fusion Landscaping® in this study neighbourhood. The Region of Peel continues to monitor water demand patterns. To date, 20% of homes in the study area have participated in this program.

- **Residential Uptake** – On average, 1,300 Fusion consultations with residents are conducted annually. Consultations are conducted by trained advisors and include a personalized landscape sketch. Follow-up calls and surveys are conducted to collect feedback, gauge uptake, and ensure residents have the necessary resources to take action.
- **Demonstration Gardens** – Demonstration gardens created in partnership with both public and private agencies (including GO Transit, City of Mississauga, City of Brampton, and Town of Caledon) help promote and encourage Fusion Landscaping® practices by providing in the ground examples.
- **Key Partnerships** – Partnerships with the Region of Peel, Credit Valley Conservation (CVC), and Toronto and Region Conservation Authority (TRCA) provide opportunities for joint projects such as the County Court Sustainable Neighbourhood Action Plan residential garden.
- **Hands-on Learning** – Fusion Landscaping® workshops allow residents to learn the steps of changing their landscape from turf to a more sustainable and beautiful landscape. Hands on workshops give residents an opportunity to work interactively with a trained advisor and other community members on building a Fusion Garden.



Demonstration site at Mayfield GO Lot



Fusion Landscape® at Turtlecreek Blvd, Brampton

Overcoming Barriers & Lessons Learned

Identifying program barriers have helped inform development of the Fusion Landscaping® program. Since the start of the program, some of the barriers encountered include:

- Required effort of implementation – once homeowners are provided with a Fusion Landscape® consultation and design it can be daunting for many to take the next step. The Region has provided additional tools, support, and continued contact with participants to help residents take action toward implementation.
- Timelines – following a Fusion Landscape® consultation and design, it can take years for residents to make the time and save money for the landscape changes presented during the consultation. Approximately 6% of homes that received a consultation made a change to their landscape within a 1-2 year period.
- Consultation Timing – Generally residents prefer to implement changes to their landscapes at the beginning of the growing season. There has been a strong preference for consultations in the spring. The Region of Peel has taken steps to increase the number of consultations available in the spring while also implementing communications to support residents taking advantage of late summer/early fall planting opportunities.

The Region of Peel has taken the opportunity to refine the Fusion Landscaping® program based on lessons learned over the years. Some of the lessons that have aided in further program development include:

- Communication materials and program branding were refined to meet both the

technical expectations of water efficient landscapes while also meeting aesthetic expectations.

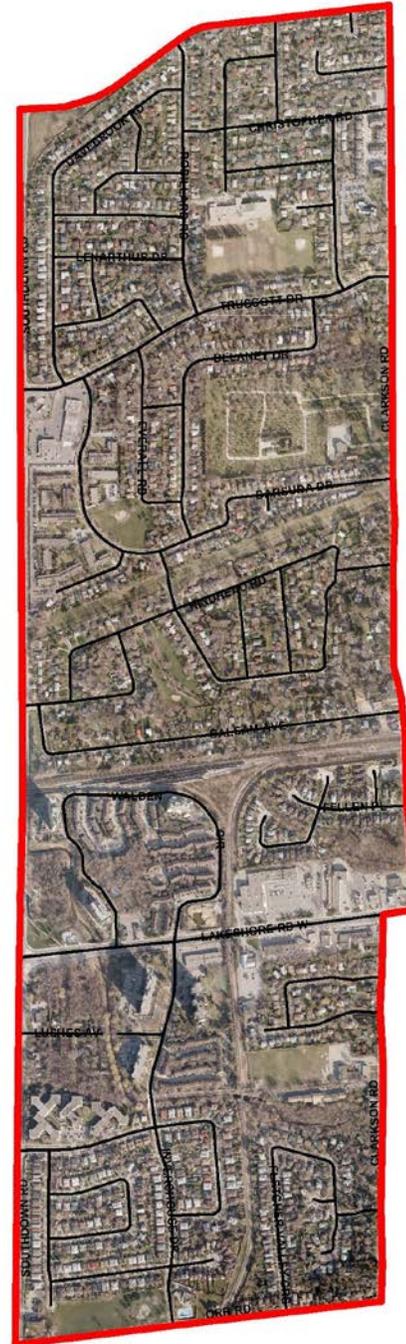
- Providing a hands-on approach to learning through practical workshops creates an increased likelihood of program uptake through motivation and engagement.
- Educating solely on the benefits of a water efficient landscape is not enough. It is also important to teach how and when to water a new landscape for establishment and maintenance. Without this component, long-term water savings may be lost.
- Not all landscape changes need to be major. The water efficiency benefits of minor changes over time are valuable when compared to major landscape changes all at once. By working with and tailoring recommendations to the resident and what scenario works best for them, they are more empowered to take action. This will result in greater long-term water savings.

Clarkson Pilot Study

In an effort to understand long-term benefits of Fusion Landscapes® a representative neighbourhood located in Clarkson (Southwest Mississauga) was selected for this study. The study looked closely at residential peak day water use and social marketing. The Clarkson community is bounded by Orr Road to the south, South Sheridan Way to the north, Clarkson Road to the east, and Southdown Road to the west. Homes in the study area have a mixed age ranging from the 1950s through to the 1990s. The economic demographics of the neighbourhood are also mixed and range from average income to high income.

Baseline water consumption data for the neighbourhood was compiled prior to beginning the pilot study in order to measure reductions in water consumption. The purpose of the pilot is to monitor the effects of Fusion Landscaping® in a given community.

Involvement from the community is an important contributing factor to the success of any community based pilot project. A visioning session was held in a local church to provide residents an opportunity to learn about Fusion Landscaping®, discuss their involvement with the project, and meet the designer working with the Region to implement demonstration front yard landscapes.



**Map of Clarkson Community:
South Sheridan Way to the North,
Orr Road to the South,
Clarkson Road to the East,
Southdown Road to the West**

As a result of the visioning session, multiple residents applied to be participants of the pilot. Every application was reviewed and evaluated and ultimately five homeowners were ultimately selected.

Homeowners were required to enter into an agreement with the Region of Peel outlining roles and responsibilities for participation throughout the pilot study.

In 2010, five homeowner demonstration gardens were constructed in the Clarkson Pilot Study area. The intent of the demonstration gardens was to closely monitor water use data to determine actual and potential water savings through the conversion of turf areas to garden landscapes. The yards selected were chosen in appropriate locations. Changes to front yard landscapes are expected to influence neighbourhood change whereby other homeowners would install Fusion Landscapes on their properties. Baseline visual observations of the community have been documented.

Demonstration Garden Design and Construction

Prior to implementing the Fusion demonstration gardens, a site analysis and discussion with the selected residents on desires for their landscape was conducted. Emphasis was placed on designing landscapes that were able to sustain the hot

temperatures of summer and either capture or slow stormwater runoff through the garden and/or permeable walkways. This was achieved even though all five sites were unique and had different sunlight requirements, exposure, slopes, and size.

Stormwater was redirected through downspout disconnections onto newly developed shrub and perennial beds. This offset the need for watering with municipal water.

Access pathways were constructed to meet the needs of homeowners on their properties. Pathways were designed 1.2m (4 ft) wide. The base for pathway construction was first compacted. A 100mm (4 in) layer of landscape sand, followed by a 100mm (4 in) layer of crushed aggregate, and a final top layer created through a mixture of limestone screening was applied. When wet, the screening hardened creating stability; however, the inclusion of loose random sized aggregate created pockets for stormwater to infiltrate during rain storms. Aluminum edging was used to keep all pathway material contained and delineate hard surfaces from adjacent plantings.



Design overview for one of the five participant residents



New path construction

Prior to garden installations, old top soil was excavated and new top soil was placed up to 450mm (16 inches). The landscape design and plant selection were based on appropriate plants identified in the Region of Peel's Fusion Landscape® program. Criteria for plant selection and bed design focused on the following:

- Native or non-invasive bulbs, perennials, shrubs and trees. These types of plants have proven the greatest results toward water-efficiency.
- All five sites were studied to ensure appropriate plants were selected and planted based on the site specific characteristics. Water-efficiency is best realized by using the "right plant for the right place".
- A 100mm (4 in) layer of shredded mulch used for perennial or shrub bed completion. Mulch assists in weed control, moderating soil temperature, and moisture retention.



A completed demonstration garden

Operations and Maintenance

Proper maintenance is key to maintaining optimum system performance long-term. Homeowners looking to be involved in the Clarkson Pilot Project were advised of their roles and responsibilities as outlined in agreements between homeowners and the Region of Peel. A maintenance schedule was provided suggesting watering was not required beyond the establishment period as Fusion Landscapes are designed to sustain themselves. The responsibilities of the homeowners included:

- Proper lawn care such as mowing, watering, weed/pest control, aeration and over seeding.
- Proper watering practices for plant establishment during the first four to six weeks.
- Application of compost in the spring to promote a healthy root system and improved soil structure.
- Application of new mulch for the first and subsequent spring to maintain a depth of three inches.
- Weeding gardens.
- Pruning of trees and shrubs to requirements of species; and contact the Region of Peel if any plants became diseased or expired.



A completed demonstration garden

Increased Marketing

A component of the Clarkson Pilot Study is to evaluate how an increased marketing focus impacts program uptake. Marketing in the study area included the following communications tactics:

- Promotion of the program through bus shelter ads.
- Door to door visits.
- Councillor newsletter project updates.
- Water bill inserts.

- Partnership and promotions through the local Business Improvement Area (Clarkson BIA).
- Partnerships with Sheridan Nurseries.



Examples of marketing tactics: Clarkson bus shelter ad (top), water bill insert (middle), Clarkson BIA Fusion Planter (bottom)

Marketing and communication efforts directed towards the Clarkson community is continually evaluated to determine most effective tactics, gaps and impact on program uptake such as landscape changes.

Program Monitoring and Evaluation

A comprehensive monitoring program was established to accurately track water use in the Clarkson Pilot Study. Three control areas far removed from the study

area and two sub control areas adjacent to the study area were selected for monitoring. Baseline water use data for the growing season (May to October) was collected prior implementing the pilot project.

For the pilot area, intensified marketing was undertaken, photographic and video graphic images of landscapes were collected, and weekly meter reads were recorded. In the control areas, only the weekly meter reads, photographic and video graphic images were taken.

Preliminary Findings

Water Use

Water use during summer months peaks throughout the Region of Peel. Baseline data was collected for two years using meter read data, prior to the installation of the five demonstration gardens in Clarkson. This has allowed the Region to compare water use throughout the pilot study.

Initial data indicates that irrigation demands at the five demonstration homes increased initially in the first season. This increase of irrigation demands was expected as a certain volume of water is required during the first four to six weeks of plant establishment. The Region expects that over time water use will decrease though the use of Fusion Landscaping®.

Preliminary data analysis indicates the demonstration homes have started to decrease in peak day water use since the establishment year and in 2013 used less water in the summer than prior to the installation of Fusion Landscaping.

The study will continue to monitor annual water use patterns to establish trends and sustainable water use.

Yearly program participation surveys are administered. Survey results indicated:

- 84% had a high level of satisfaction with the service.
- 18% scheduled for knowledge and advice from the trained advisors.
- 16.5% were looking for beautification of property.
- 16% wanted to incorporate water savings into their landscape. This helps support research indicating water conservation and aesthetic values are key motivators to landscape change.
- 53% indicated they did implement some sort of change to their landscape.
- 89% indicate they plan to implement changes to their landscape.

Social Marketing

An intensified marketing approach was used to increase participation in Fusion Landscape® consultations. Consultations in the Clarkson Pilot Study area have increased to 20% or 294 consultations of the 1456 homes in the study area. The goal for the study area is to provide consultations at 30% of the area homes.

Changes in landscapes in the overall study area are being identified through visual observations and surveys of the front of properties. Changed landscapes are determined by estimating the amount of turf or lawn cover which has been removed and replaced with a Fusion Landscape®.

- 65 or 4.46% homes have existing Fusion® Gardens that were present before the pilot started in 2010.
- 66 or 4.53% homes in the Clarkson Pilot Study area have undergone some type of change to their landscape (major or minor).
- Of the 66 homes, 33 homes have made major changes to their landscape. 9 of those homes have had a Fusion Landscape® consultation.
- The remaining 33 homes made minor changes to their landscape, of which 8 of those homes have had a Fusion Landscape® consultation.

The visual observations recorded demonstrate that front yard landscapes are changing in the Clarkson neighbourhood. These landscape changes indicate that through both Fusion consultations and the visual impacts of the demonstration gardens on homeowners is transforming the Clarkson community to be more lush, beautiful and water efficient.

Costs

An operating budget of \$150,000 is allotted to deliver the Fusion Landscaping® program including the Clarkson Pilot Study. The budget is comprised of the following expenses:

- Eight advisors for the months of May to September
- Data analysis
- Print materials
- Mobile signs
- Vehicle rentals