FINAL REPORT CANADA BLOOMS & PARKLANE present A Public Awareness Campaign for Low Impact Development funded by MINISTRY OF ENVIRONMENT & CLIMATE CHANGE OCTOBER 2015



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1. PROJECT DESCRIPTION

In October 2014 Canada Blooms was supported by the Ministry of Environment and Climate Change to provide a Public Awareness Campaign (PAC) to reduce the impact of Storm-water on Lake Simcoe and its tributaries. Canada Blooms engaged Parklane Nurseries to design & build a Demonstration Rain Garden and Public Awareness Campaign at the 2015 Festival. This PAC project took place at the Canada Blooms 2015 Festival at the Direct Energy Centre, Toronto from March $13^{th} - 22^{nd} 2015$.

The objective of the project was to promote the adoption of Low Impact Development (LID) techniques at the lot level and to target residential landowners in the Lake Simcoe Watershed as well as other parts of Ontario. Parklane Nurseries designed a 278sqm interactive garden space with four demonstration rain gardens, permeable paving applications, functional artistic downspouts, water conservation methods, native planting schemes and aesthetic low impact development techniques and areas dedicated to the dispersal of material from conservation authorities and suppliers of LID materials.

To assist in the public awareness, Parklane designed and formatted an Interactive Map illustrating the watersheds which coincide with the Conservation Areas of Southern Ontario and the drainage basin of Southern Ontario. These maps explained the watershed of the rivers, tributaries and lakes of the area and also how these watersheds are connected to the drainage basin for the great lakes surrounding Southern Ontario, Lake Erie, Georgian Bay, Lake Huron and Lake Ontario and further connected to the oceans. An additional map was provided by Lake Simcoe Regional Conservation Authority of the Lake Simcoe watershed. This map facilitated the promotion of the current grant incentive currently provided for by LSRCA. To help educate the public on Low Impact Development at the lot level and understand the journey of water, an electronic Rain Garden Calculator was designed and developed to calculate the amount of rain water captured off an individual roof and the appropriate size of rain garden required.

The following is a Report evaluating the Project described under the 4 main actions taken to provide:

- o A Rain Garden Calculator
- \circ $\,$ A Public Awareness Campaign for Low Impact Development at the lot level
- o An Interactive Watershed Map
- A Webpage dedicated to the above project

The following report explains the Project Objectives as outlined in Schedule A of the Grant Funding Agreement. It follows to analyze each objective with the actions taken to carry out the project, the timescale and additional comments noted through the duration of the Public Awareness Campaign. The conclusion provides for a summary of the findings of this evaluation.

2. PROJECT OBJECTIVES

As stated in Schedule A.3 of Grant Funding Agreement between Canada Blooms & MOECC,

"The objective of the project is to reduce the impact of urban storm-water on Lake Simcoe and its tributaries. The objective of the project is to promote the adoption of Low Impact Development techniques at the lot level and to target residential landowners in the Lake Simcoe Watershed as well as other parts of Ontario."

The recipient will create:

"3 demonstration rain gardens supported by educational tools encouraging Lake Simcoe property owners to adopt LID, water and soil conservation strategies."

The Recipient will:

Develop Rain Garden Calculator

Create & Deliver Public Awareness Campaign for Low Impact Development

Create & Implement an Interactive Watershed Map

Create a webpage dedicated to the Project

Prepare a Comprehensive Report

Post above on website



3. PROJECT EVALUATION

3a. Rain Garden Calculator

Action Taken

Engage a website designer to develop rain calculator

Rain Garden Calculator designed through Parklane website

Visitors input Sqft roof size, quantity of downspouts and soil type and email address

Sqft size of rain garden calculated

Quantity of protected rain water calculated

Timeline

October 2014-March 2015 http://www.parklane.on.ca/sustainability/rain-garden-calculator/

Comments

The Calculator was initiated in-house at Parklane based on the requirements of clients for information regarding size, material options for rain garden designs. It was determined that there were certain criteria required for the calculation of rain gardens based on standard average and extreme rainfall events. These criteria were sqft size of roof, number of downspouts on roof, number of downspouts directing into rain garden and type of soil.

This calculator served as an educational tool to ask people to consider the different elements required for low impact development. Seeking information such as quantity of downspouts, roof size and soil type engaged the visitor to start thinking about how they can impact and protect a watershed system. The calculation provided the technical information required for a do-it-yourself option for individuals. It was interesting to see people mentally travel around their homes counting downspouts and becoming aware of where they currently drain.

A kiosk was installed at the garden co-funded by the Ontario Water Centre to provide access to the Calculator via the Parklane website and to promote the new children's book by the OWC on Wise Water Conservation. This kiosk also provided access to Enjoy Lake Simcoe and a Wise Water manual for kids to be published in 2015.

The development of the calculator is on-going. Through the duration of the festival, it experienced the greatest volume of traffic. With the assistance of the trainers, visitors were directed to the website to calculate the size of rain garden based on their residential lot information.







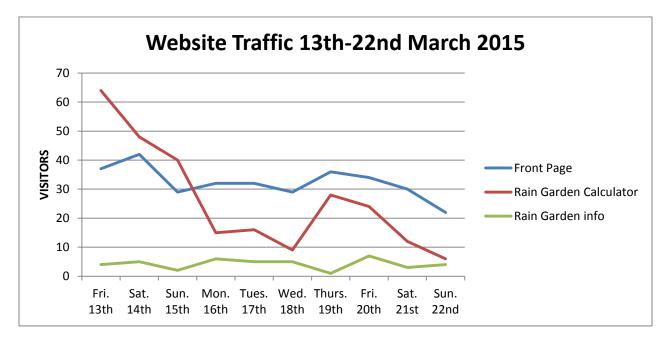


Fig 1. Visitor Traffic to the Parklane Website over duration of Canada Blooms Festival.

The traffic on the website through the duration of the Festival indicates a majority of visitors are from Toronto. 7% of the total visitors to the website over the duration of the show were from the Lake Simcoe Watershed Area, two of the major urban centres, Barrie (17) and Newmarket (13) as illustrated below.

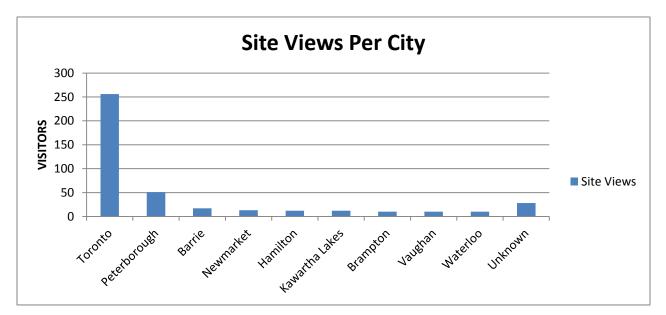


Fig 2. Visitor Traffic to the Parklane Website over duration of Canada Blooms Festival.

3b. Create & Deliver a Public Awareness Campaign

Action Taken

- Design & Build 278sqm demonstration LID space with four distinct Demonstration Rain Gardens using different materials and different Low Impact Development Techniques
- o Recruitment & Training of Trainers for Canada Blooms 2015 Public Awareness Campaign
- o Demonstrate Permeable Paving Applications and LID techniques for non-permeable surfaces
- o Demonstrate Native Planting Schemes for Trees, Shrubs, Perennials
- o Demonstrate the interaction of Rain Gardens as irrigation tools for Vegetable Gardens
- o Provide Signage in garden explaining the different LID application with images and descriptive text
- Engagement with Public to explain Rain Garden definition, construction, application and walk through LID process
- Provide Demonstration Rain Garden Trainers at the Canada Blooms Festival to explain LID and its practical application at the Lot level and answer questions for any of the visitors
- Provide information for Lake Simcoe Watershed residents to apply for LSRCA incentive grants for installing Demonstration Rain Gardens
- Media Opportunities to promote the Demonstration Rain Gardens at Canada Blooms and promotion of the Rain Game through social media

In participation with the Canada Blooms 2015 theme 'Let Play' Parklane's slogan for the garden became "Play the Rain Game"

- Magazine Advertising Lake Simcoe Living March/April 2015 (see Appendix B)
- Social Media Facebook, Blogs
- o TV Advertising The Weather Network, CP24, Canada AM, New Cam
- o Website ourlakesimcoe.com, parklane.on.ca, canadablooms.com
- Show Guide Feature Garden & Exhibits
- Professional Presentations Anna van Maris, Parklane Nurseries; Andee Pelan, LSRCA; Annabel Slaight, Ontario Water Centre
- Public Personality Engagements Mark Cullen (Canada AM), Sonia Day (Toronto Star), Kevin Yarde (The Weather Network), Jamie Gutfreund (CP24)



Canada AM 13th March 2015



Toronto Star 16th March 2015



The Weather Network 19th March 2015



CP24 14th March 2015

Timeline

September 2014 - March 2015

Comments

The design for the demonstration Rain Garden was approved by the Canada Blooms Design Committee in October 2014. The details of the different LID applications were designed and the material choices determined.

Parklane and its staff have been designing and constructing Rain Gardens for 10years. Therefore, the existing staff of presented the most qualified team as trainers for the Canada Blooms Festival.

An orientation training day was provided to all trainers to be present at the Canada Blooms Festival. Information was provided on LID, the Rain Garden Calculator and the different elements and materials in the demonstration garden.

Parklane engaged with additional suppliers to provide materials for the Demonstration Areas which are appropriate for LID, Unilock for Permeable Paving, Aco Drains for Hexdrain Channel System, Buchner Manufacturing for steel roof construction, and Verbinnen Nurseries for native plants.

Parklane engaged with local metal Artists to design and construct attractive imaginative downspouts to engage and educate the public on the artistic and creative opportunities with rain garden and LID.

The signage was designed by Parklane and described each LID application demonstrated in the garden. This signage was designed to be appropriate for the website and was based on the on-going presentations Anna van Maris presents to local Conservation Areas, community groups and Horticultural Society on LID and Rain Garden installations.



Media Coverage for Parklane & Canada Blooms 2015 (additional see Appendix A)

- Toronto Star Top 10 reasons to visit Canada Blooms by Mark Cullen
 Advertising Value \$23,190 Circulation 500,678
- Canada AM Gardening with Mark Cullen
 Advertising Value \$6,400
 Circulation 450,000
- CP24 Breakfast with Jamie Gutfreund
- Advertising Value \$2,400 Circulation 25,700
- \circ ~ The Weather Network with Kevin Yarde
 - Advertising Value \$2,500 Circulation 5.1million
- The London Free Press Canada Blooms
 - Advertising Value **\$10,073** Circulation **77,670**
- o Lake Simcoe Living distributed

Advertising Value **\$1,600** Circulation **13,500**

Demonstration Rain Garden Statistics

- o 6000 visitors to Demonstration Rain Garden
- o 136 LSRCA Grant Incentive Distribution
- o 852 Rain LSRCA Garden Leaflet Distribution
- o 1121 visitors participated in Rain Game Map at Parklane Garden
- o 661 visitors have existing Rain Gardens in Southern Ontario Red Dot
- o 460 visitors pledge to install a Rain Garden in Southern Ontario Blue Dot
- o 79 visitors have an existing Rain Garden in Lake Simcoe Watershed Red Dot
- o 39 visitors pledge to install a Rain Garden in Lake Simcoe Watershed Blue Dot
- Residents of Lake Simcoe were 3rd highest participants interacting on watershed map (count 72)
- \circ 419 visits to parklane.on.ca from 13th March 22nd March
- o 9 confirmed emails through Rain Garden Calculator to design rain garden

3c. Create & Implement an Interactive Watershed Map

Action Taken

- o Determine the watershed boundaries of Southern Ontario
- Create an Autocad version of watersheds with water bodies, rivers and tributaries, large cities and towns
- Determine the drainage basin for great lakes illustrating gradient changes in colour for the watersheds for each of the great lakes
- o Create a Vectorworks file with interactive capabilities for the website after the Festival time

Timeline

October 2014 – March 2015

Comments

To provide an accurate understanding of watersheds and drainage basins, it was determined to provide a map of Southern Ontario. This would explain the drainage basins for the Great Lakes – Erie, Ontario, and Huron.

It was determined to colour each watershed area and therefore each Conservation Area of Southern Ontario. All large water bodies, rivers and tributaries were illustrated and used as orientation tools for visitors. This would allow visitors to become aware of their individual lot location and the connection with local tributaries, rivers, watersheds and drainage basin.

Visitors were asked to place a dot on the map:

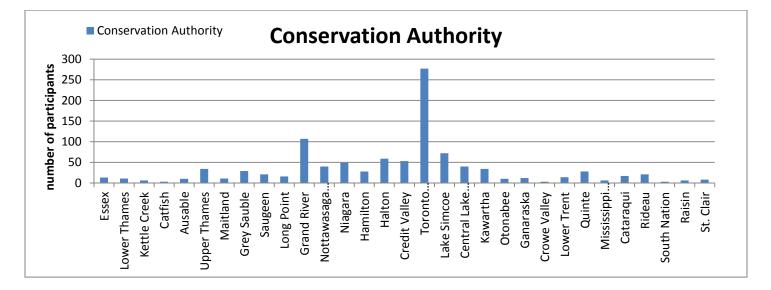
Place a Blue Dot if you have a Rain Garden Place a Red Dot if you would build a Rain Garden







It was evident that there were visitors to the Festival from each Conservation Area. Dots were positioned on the watershed map and also the Lake Simcoe Map. Upon evaluation, there were many visitors from Northern Ontario and USA.



3d. Create a webpage dedicated to the Project

Action Taken

Hire a Website Technician

Low Impact Development Webpage developed on parklane.on.ca

Illustrate Autocad details, sections and images of different low impact development applications

Compile explanations for each Low Impact Development option

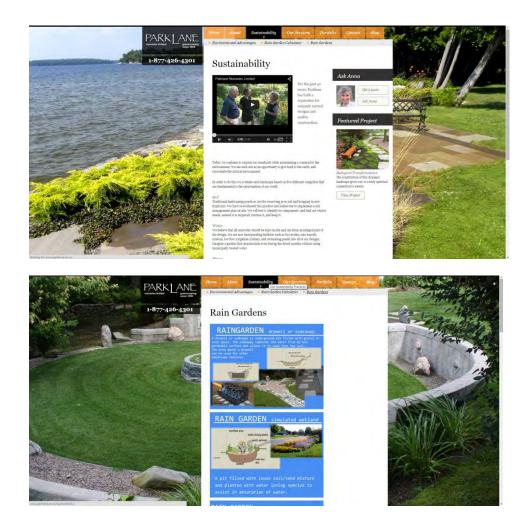
Timeline

January 2015 - March 2015

Comments

A previous summer student who was enrolled in University of Waterloo physics department became available for part time employment in January 2015. His skill sets included web designer and due to his previous experience with Parklane and knowledge of Rain Garden Construction such as De La Salle Demonstration Rain Garden he was an ideal candidate for the development of the Rain Garden Calculator and dedicated Webpage.

A dedicated Low Impact Development page was added to the Parklane website, parklane.on.ca. This page provides explanation and illustrations for LID applications. The webpage was in addition to an existing sustainability page promoting sustainable gardening, with practical real life examples of rain gardens designed and constructed by Parklane over the previous 10years.



Through the analytics of the website, the greatest amount of time spent on any page of the Parklane website was on the dedicated page for LID for the duration of the Festival. This page will remain on the website after the festival and additional information will be included as a reference area for sustainable water management.

It is proposed to add a digital copy of the three maps onto the webpage, Watersheds of Southern Ontario, Drainage Basin Map and Lake Simcoe Watershed Map.

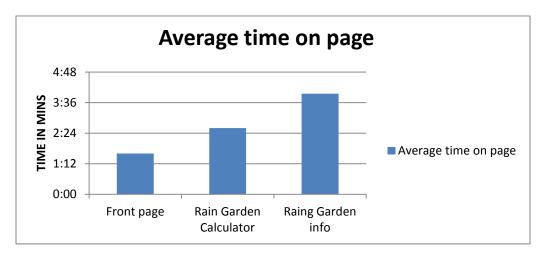
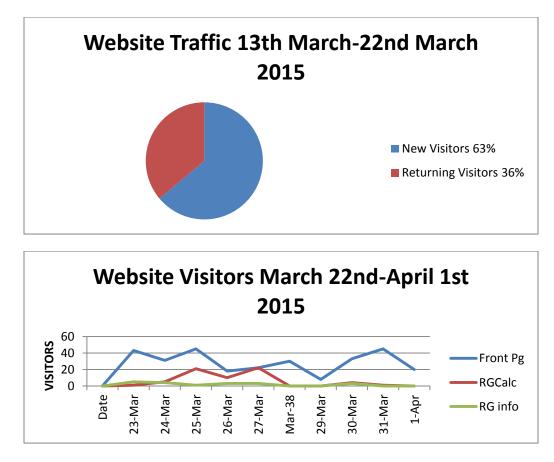


Fig 3. Amount of time spent on the Parklane website through the duration of the Festival.

The history of the website through the duration of the Festival illustrates that there were primarily more new visitors to the Parklane website than returning. The addition of the dedicated webpage with LID information attracted new visitors and educated 395 new participants on LID applications.



4. CONCLUSIONS & RECOMMENDATIONS

The Public Awareness Campaign at Canada Blooms 2015 was received positively. The Campaign attracted Media attention from 3 main local TV stations.

The participation on the Map is indicative of the knowledge among the public regarding LID and the pledge of 460 lot owners to do more by installing rain gardens as part of the storm-water management on their lot.

The website received a positive response through the duration of the show with more new visitors browsing than returning visitors, encouraging an interest in Low Impact Development and a need to provide visual and practical applications of Rain Gardens, permeable paving etc.

Providing the four demonstration Rain Gardens illustrated to the general public that Rain Gardens can be constructed in an aesthetically pleasing manner and can be low maintenance. Many people were surprised that the vegetable garden was constructed within a rain garden and was ordered and tidy.

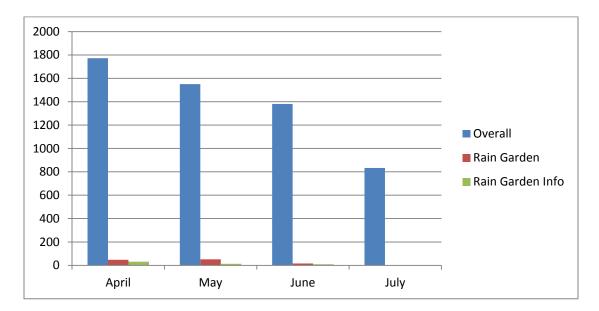
The Rain Garden Calculator and dedication Low Impact Development webpage remain an integral part of the Parklane website for visitor interaction and a resource to gain further information on rain gardens.

The Public Awareness Campaign is on-going after the Canada Blooms Festival. Anna van Maris completed four public Rain Garden Seminars within the Lake Simcoe and Ganaraska Conservation Regions. These presentations were to lot owners, Horticultural Societies and Master Gardeners. The activity on the website has peaked in correlation with the dates for these presentations indicating the use of the Parklane website as a reference point for Rain Gardens and Calculator.

The Public Awareness Campaign continued as part of the Windfall Ecology Festival on July 13th & 14th 2015. Parklane participated in the Show by designing and constructing a demonstration rain garden attached to a Yurt. The Yurt space was available as a design studio throughout the festival to educate the public on Low Impact Development. See <u>http://windfallcentre.ca/festival/exhibits</u> for further details.

The response rate of the public was positive initially after the Canada Blooms Festival. Over the past 3 months (April-July) there have been approximately 20 Rain Garden Designs completed by Parklane. These involved an inquiry by the general public to the office regarding the LSRCA initiative. A Rain Garden representative from Parklane would meet the client on site and discuss the site, constraints, water issues etc, illustrating the size of rain garden as determined by the calculator. They then provided an in-house design with an estimate as part of the application to LSRCA. The LSRCA grant incentive requires 3 estimates based on individual designs prepared by individual contractors. The general public observed and remarked on the following comments through the process:

- The Rain Garden Calculator should be a mobile application suitable for phones, ipads etc.
- The next step on the Rain Garden Calculator should be to quantify and show the amount of material required for the size of rain garden.
- Some applicants found the process frustrating as 3 estimates were required and difficult to obtain. Contractors are uncomfortable providing designs at no cost so each contractor is designing a different rain garden solution. It was recommended that a separate funding category is made available for the design portion of the process. Perhaps if the homeowner shows interest in building a rain garden the funding for one design (by designer of their choice) can be contracted at minimal cost and then three quotes obtained based on the one design.
- People are generally aware of the Low Impact Development. They recognize and practice the principles of water conservation through rain barrels, soil conservations through composting and general LID methods in their gardens.
- They were not aware that LID was a movement encouraged by municipalities and townships. The most common question by the public was "What is a Rain Garden?". Their understanding was limited to their understanding of Low Impact Development. When the trainers explained the different applications of a rain garden at the Canada Blooms Show and on site at the clients home, people become more aware of the idea, construction and process.
- The activity on the website correlates with the activity from the Canada Bloom Shows. It is usual for the peak of activity to be in the early Spring/Summer months.
- As discussed above the pledge to install a Rain Garden was positive, the majority of neutral responses were as a result of the individual living in a condominium. It was explained that a collective rain water harvesting project could be encouraged and promoted through the residents.



Visitors to Parklane website from March 3rd until July 28th 2015







Anna Van Maris presenting Rain Garden seminar to local horticultural societies.







Parklane participating with Frank Ferragine (Frankie Flowers) at the Rain Garden workshops and design studio at Windfall Ecology Festival

Sample Design for Rain Garden Designed by Parklane Nurseries ltd.

ROOF SIZE: 1225SQFT

D/SPOUT:

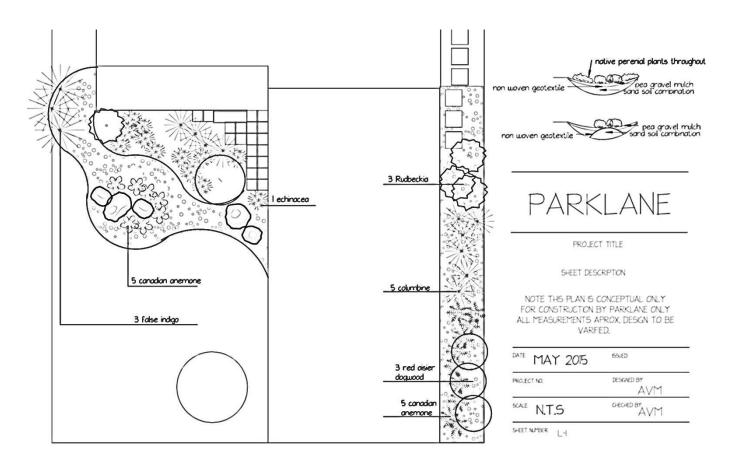
LID Application: Simulated Wetland Design with Scree Garden as per Parklane website

RAIN GARDEN SIZE: 220sqft calculated at 14" deep

Clay

3

SOIL TYPE:



Conclusion dated 31st July 2015

The Project as described in the agreement above achieved full completion. The scheduled finish date was August 2015. As this report shows the objectives of the project were achieved successfully.

5. PUBLIC AWARENESS CAMPAIGN PARKLANE NURSERIES & CANADA BLOOMS 2015

Demonstration Areas, Artistic Downspout, Permeable Paving, Signage, Map, Kiosk and Public Engagement

























APPENDIX A

MEDIA OPPORTUNITIES

Television Shows

Canada AM with Mark Cullen Gardening http://canadaam.ctvnews.ca/video?binId=1.1811883

The Weather Network with Kevin Yarde

CP24 Breakfast with Jamie Gutfreund

Articles

http://www.thestar.com/life/homes/2015/03/13/top-10-reasons-to-visit-canada-blooms.html

by Mark Cullen

http://www.cjad.com/the-green-file/2015/03/16/canada-blooms-my-top-10-list

by Mark Cullen

http://savvygardening.com/things-i-want-in-my-garden-canada-blooms-edition/

by Tara Nolan

http://torontogardens.blogspot.ca/2015/03/march-break-for-families-at-canada.html

by Helen Battersby

http://www.lfpress.com/2015/03/05/canada-blooms-offers-sure-signs--and-scents--of-spring

by London Free Press

http://www.lfpress.com/2015/03/18/in-a-nod-to-the-pan-am-games-canada-blooms-showcases-how-fitness-and-sports-can-reconnect-people-to-the-outdoors

by Janice Wallace

http://rhymeswithlinnaeus.com/2015/03/18/5-best-garden-ideas-from-canada-blooms/

by Rhymes With Linnaeus

http://www.beachmetro.com/2015/03/11/glam-canada-blooms/

by Mary Fran Mc Quade

http://www.lakesimcoeliving.com/issues/2015-march-april/

by Johanna Powell

https://www.facebook.com/ourlakesimcoe?fref=photo

http://www.ourlakesimcoe.com/home.html

Our Lake Simcoe

Videos

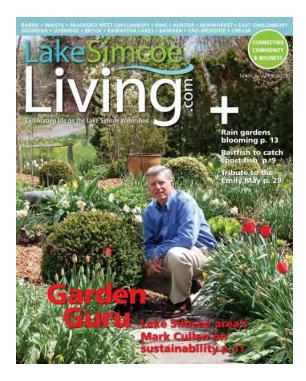
https://www.youtube.com/watch?v=IFSkBqox3DE by Kim Roberts

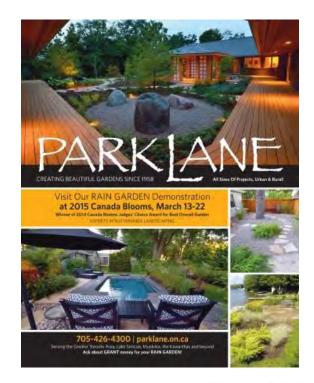
https://www.youtube.com/watch?v=qaFr2_C3NAo&feature=share_by Barbara Philips Conroy

https://www.youtube.com/watch?v=yyjYurKuXj8_by NewCam Korean

Appendix B

Lake Simcoe Living March April 2015

























Canada Blooms Show Guide 2015



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"In an effort to protect our fresh water resources from pollutants and run-off, the Parklane Rain Game challenges visitors to think of how each of us can capture rain in our gardens to help control Storm-water run-off and recharge the water table. The visitor will see examples of how to deal with Storm-water through Rain Gardens, a Soakaway, Infiltration Swales, Permeable Paving and fun Artistic Downspouts. Visitors are invited to think about the watershed their home is located within and see different ways to play with Rain. Slow it down, Soak it up and Keep it clean. The Parklane team welcomes the visitor to consider our Rain Calculator and learn how to calculate the size of rain garden suitable for their own home and garden. Join the Parklane Team to play the Rain Game and Design Your Own Rain Garden at our daily workshops"