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3rd Annual TRIECA Conference – March 25 & 26, 2014
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Greening Your Grounds: Engaging Communities about Low Impact Development

TRIECA March 25 and 26, 2014

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Engaging Communities about LID





Greening Your Grounds Program

- Greening Your Grounds Guide
 - *Providing technical knowledge to watershed residents*
- Community Engagement Case Studies
 - *Addressing the knowledge barrier and the cost barrier*
- Lessons Learned
- Next Steps
 - *Sharing the program across Ontario*



LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT PLANNING AND DESIGN GUIDE

Version 1.0

2010



Greening Your Grounds

A Homeowners Guide to Stormwater Landscaping Projects



Toronto and Region
Conservation
for The Living City

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WORKSHEET

Measuring Slope

The following instructions will help you determine the slope under each of your home's downspouts. Slope can vary from one downspout to the next so you need to look at each one individually. Once you have calculated each slope, be sure to write the numbers on your property sketch on page 5.

Tools Required:

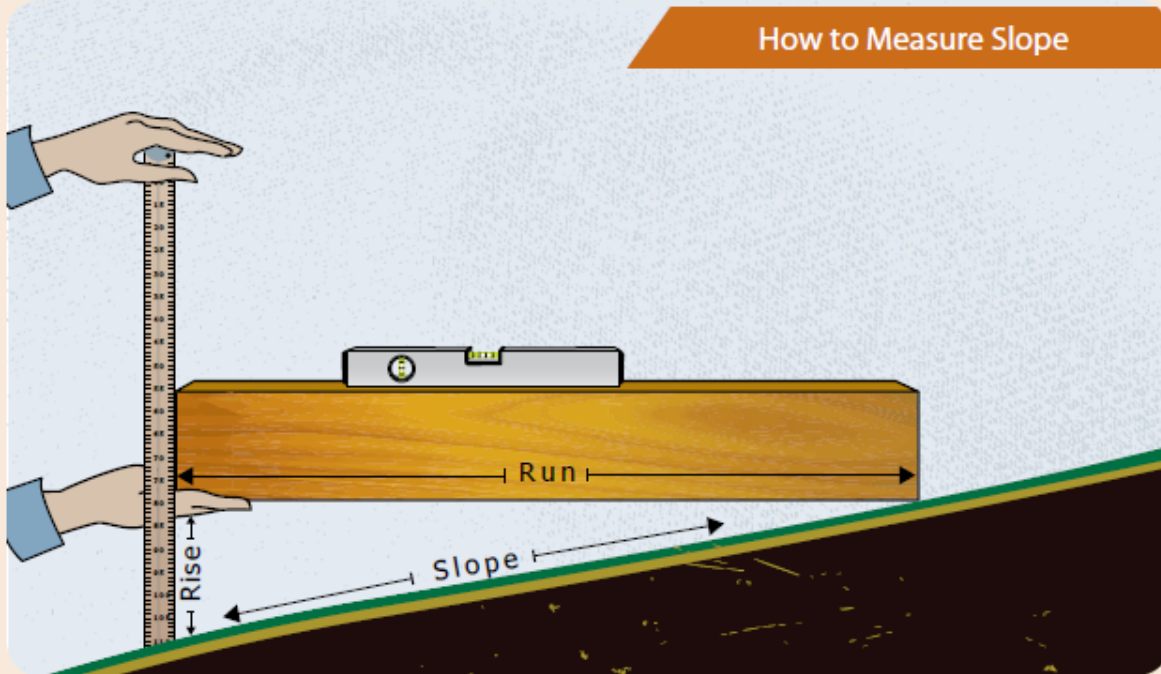
- Carpenter's level
- Metre stick
- Straight wooden board (a piece of 2x4, approximately 1.5 metres long works best)

Steps:

- 1 Place the wooden board along the slope you want to measure.
- 2 Place the level on top of the wooden board, and lift the lower end of the board until it is level.
- 3 Measure the distance from the ground to the bottom edge of the wooden board. This is your 'rise'. (If you measure it in centimetres, be sure to convert to metres.)
- 4 Measure the length of the wooden board you used. This is your 'run'.

Greening Your Grounds Guide

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How to Measure Slope

My Slope Calculation

Distance from bottom edge of wooden board to the ground (rise) = (A1) _____ cm

Convert rise into m: (A1) _____ cm / 100 = (A) _____ m

Length of board = (B) _____ m

Calculate your slope: (A) _____ m / (B) _____ m = (C) _____

Calculate percentage slope: (C) _____ x 100 = _____ %

What Does My Slope Percentage Mean?

In general, if you have a slope between 1 – 5%, that is considered good. Once the slope goes over 5%, the water flows faster and makes it harder to soak into the ground. Slopes over 5% are not ideal for stormwater management projects presented in this guide.



REMEMBER

Once you know the slope under each of your downspouts, refer back to your property sketch. Write the slope calculation under the appropriate downspout in your drawing.



Getting Started

Downspout disconnection is a simple, inexpensive process that you can do yourself.

Tools Required:

- Hacksaw
- Tape measure
- Screwdriver
- Work gloves and eye protection

Materials Needed:

- Downspout elbow
- Sheet metal screws
- Downspout extension piece
- Cap or plug to seal drain pipe
- Wall bracket
- Plastic splash pad or river rocks

How Much Will my Downspout Disconnection Project Cost?

The rough cost includes:

Downspout elbow	\$3
Cap or plug to seal sewer pipe	\$3
Sheet metal screws (package of 12)	\$2
Wall bracket/Downspout strap	\$2
Downspout extension piece (10 foot length)	\$12
	\$9

\$31

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Grounds Guide
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Steps

- 1** Cut the downspout approximately 23 to 30 centimetres (9" to 12") above the storm drain connection pipe.
- 2** Remove the cut piece and, if required, attach a wall bracket to secure the remaining downspout to the wall.
- 3** Secure a cap (or plug) onto the storm drain pipe. This is an important step as it seals the pipe, which ensures that no water, debris, or animals get into it.
- 4** Insert an elbow over the end of the downspout. Secure with sheet metal screws.
- 5** Add an extension piece (a length of 3 metres is recommended to provide sufficient distance from your house to prevent water from entering your basement) and secure it to the elbow with sheet metal screws. Add a plastic splash pad or a few small river rocks to protect the ground and help distribute flow.



Resources



NATURALIZATION

Canadian Mortgage and Housing Corporation – Landscaping

<http://www.cmhc-schl.gc.ca/en/co/maho/la/index.cfm>

Region of Peel – Fusion Landscaping

<http://www.peelregion.ca/watersmartpeel/residents/fusion-landscaping/index.htm>

York Region – Water for Tomorrow

<http://www.waterfortomorrow.ca/en/athome/inthegarden.asp>

Toronto and Region Conservation - Healthy Yards

www.trca.on.ca/yards

Canadian Wildlife Federation – Wild about Gardening

<http://www.cwf-fcf.org/en/what-we-do/habitat/wag-home.html>

North American Native Plant Society

<http://www.nanps.org/>

Evergreen

<http://www.evergreen.ca/en/resources/home-greening/index.sn>



WHERE TO BUY NATIVE PLANTS

For all of the projects in this guide, it is recommended that native plants are used whenever appropriate. Native plants can often be found at regular garden centres and nurseries, but there are also a number of specialty native plant nurseries in the GTA that will offer a much larger selection.

Grow Wild

www.grow-wild.com

Native Plants in Claremont

www.nativeplants.ca

Native Plant Nurseries

www.nativeplantnurseries.ca



Case Study: Demonstration Rain Garden

- Markham Environmental Sustainability Fund
- Align with the City of Markham's Greenprint (2011)
- Visit the demonstration rain garden to see LID technology in practice





Lessons Learned: Rain Garden

Get the local community involved

- *Engaging volunteers cuts costs*
- *Instills residents with a sense of ownership*





Lessons Learned: Rain Garden

Balance opportunities for education and accessibility

- *Gardens need to be beautiful*
- *Signs and tours provide information about how the garden functions*





Case Study: Workshop Series

- Ontario Trillium Foundation and Markham Environmental Sustainability Fund
- Engage residents in projects to reduce lot level flooding
- Greening your Grounds guides were distributed





GET STARTED!

Monday, March 25th, 2013, 6:30 p.m. – 8:00 p.m.

OR

Tuesday, March 26th, 2013, 6:30 p.m. – 8:00 p.m.

What is a rain garden? How does a rain barrel work? Should I install a permeable patio? Learn about the newest trends in residential landscaping and how to use them to add pizzazz to your property.



Take home a
FREE workbook!

LEARN ABOUT...RAIN BARRELS!

Tuesday, April 9, 2013, 6:30 p.m. – 8:00 p.m.

Rain barrels are a simple, inexpensive way to make use of the rain water that falls on your property. Join us to learn how to install and use a rain barrel.



Take home a
FREE rain barrel!

LEARN ABOUT...NATIVE PLANTS!

Monday, April 15th, 2013, 6:30 p.m. – 8:00 p.m.

Native plants can add dazzling elements of colour and shape to any garden! You will leave this workshop with the inspiration and know-how to create your own natural garden oasis.



Take home a
FREE native plant kit!

LEARN ABOUT...RAIN GARDENS!

Thursday, April 25th, 2013, 6:30 p.m. – 8:00 p.m.

Rain gardens may look like regular gardens, but they are actually so much more! Join us to learn how to create or update your garden.



Take home a
FREE rain garden kit!

ASK THE EXPERTS!

Thursday, May 2nd, 2013, 6:00 p.m. – 9:00 p.m.

Get one-on-one expert advice about your plans from landscapers, engineers, garden gurus, and staff from TRCA and Region of Peel. Appointments are limited, so register early!



Lessons Learned: Workshop Series

Tailor the message to the audience.

- *Use accessible language*
- *Focus on homeowner benefits*

Create a Healthy Yard this Spring

Want to update your yard, but don't know where to start? Our experts will lead you through all the steps to creating a personalized plan for your property. Join us today and enjoy your new yard this summer!

FREE EVENTS



Case Study: Grant Program

- Funding for professionally installed residential LID projects
- Eligible to residents in flood-prone area surrounding Etobicoke Creek (Brampton, ON)



**Water
Garden**
GRANT PROGRAM



What Will We Fund?

Project Category	Grant Rate	Grant Ceiling
Rain barrel	80% of eligible project costs*	\$300
Soakaway	80% of eligible project costs*	\$1000
Infiltration trench	80% of eligible project costs*	\$1500
Rain garden	80% of eligible project costs*	\$2500

*Eligible costs includes downspout disconnection and installation.



Rain Barrel



Soakaway



Infiltration Trench



Rain Garden



Lessons Learned: Grant Program

Don't assume!

Not all landscaping contractors are familiar with LID technology





Lessons Learned

Relationship building takes time

*Share the message more than once
in different formats*

Create a Healthy Yard this Spring

Want to update your yard, but don't know where to start? Our experts will lead you through all the steps to creating a personalized plan for your property. Join us today and enjoy your new yard this summer!

LOCATION OF EVENTS

Cyril Clark Public Library, 20 Loafer's Lake Lane, Brampton

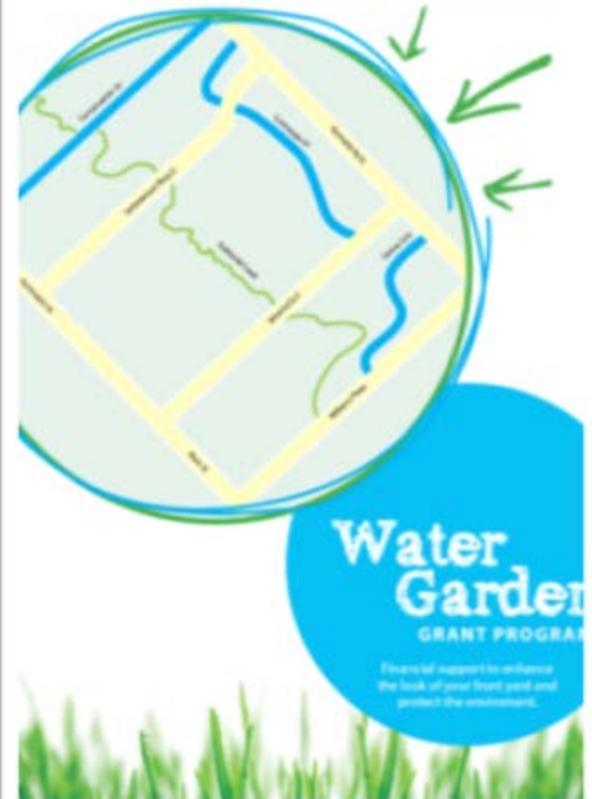
REGISTER TODAY!

Please register online at www.trcastewardshipevents.ca or by phone at 416-661-6600, ext. 5644.



Do You Live Here?

If you do, then you are eligible for funding.





Next Steps...

- Greening Your Grounds workshops across the GTA in the TRCA jurisdiction
 - *To continue watershed resident education*
- Seek out new funding opportunities to support homeowners across our watersheds
 - *To reduce the cost barriers*
- Train-the-Trainer sessions across the province
 - *To share the tools that we have developed*



Thank you!

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