



Long Point Region Conservation Authority (LPRCA) Low Impact Development (LID) Demonstration Project

Site Location: 4 Elm Street, Tillsonburg, ON

The LID Project at the LPRCA office will serve several purposes. It will provide onsite infiltration of stormwater, improve water quality, enhance terrestrial and aquatic habitats and serve as an outdoor demonstration site for the community and region.



Project Overview

The LPRCA LID Project includes both soakaway pits and bioswales, in addition to planting native vegetation, which will help reduce stormwater runoff and improve water quality flowing into stormsewers to Big Otter Creek and eventually into Lake Erie.

These techniques are designed to mimic natural conditions which promote water retention, infiltration and the slow release of stormwater runoff.

Project Background

In February 2010, LPRCA relocated its administration office to its current location. This 5.4-acre site includes an 11,000 square foot office building, two sizeable parking lots and mowed grounds with scattered trees. The goal of the LPRCA LID Project is to turn this well visited and high profile location into a demonstration site that promotes Low Impact Development techniques. LID has emerged as a highly effective and attractive approach to controlling stormwater pollution and protecting watersheds in communities.

What We're Doing

Greening the Landscape



Trees, shrubs and perennial grasses and wildflowers help maintain the natural water cycle by improving evapotranspiration and filtration.

The mix of deep-rooting, long-lived perennial prairie plants with native tree and shrub species planted on-site are suitable for the area's moisture regime and soil type and will maximize biodiversity. Environmental benefits of the vegetation planted include intercepting precipitation, utilizing nutrients, decreasing erosion and improving water quality downstream as well as 'green' the office location and provide wildlife habitat.

The planting plan designed for the LPRCA office includes native conifer and deciduous species planted in rows on the north and south side of the property with prairie species planted on the front slope in a pattern incorporating elements of the Conservation Authority's logo.

Green Stormwater Infrastructure Tools

It is important to prevent as much runoff from stormwater on your property as possible to allow for the replenishment of groundwater and prevent erosion of local stream beds. Rain water runoff carries not only top soil, but fertilizers, pesticide, oil and other pollutants into surrounding creeks and streams. Once in our waterways, these contaminants cloud the water, stress aquatic life and disrupt stream habitat.

At the LPRCA office, stormwater from the parking lot will be redirected to bioswales and soakaway pits will be established at the downspouts to promote groundwater recharge. Bioswales and soakaway pits will be designed to accept, infiltrate and clean stormwater. These areas will catch surface runoff and slow its movement through the ground promoting infiltration, which will also contribute to improved water quality and fish habitat.



How the LID Project supports Our Stakeholders

Everyone lives within a watershed and everyday actions have both positive and negative impacts on the watershed. A watershed is made up of several connected components; therefore, what happens upstream ultimately affects the receiving waters downstream. As our communities grow, one of society's greatest challenges includes the cumulative impacts of rural and urban pressures on the health of ecosystems.

Low Impact Development has emerged as a highly effective and attractive approach to controlling stormwater pollution and protecting watersheds. LID seeks to mitigate the impacts of increased runoff and pollution by managing runoff as close to its source as possible.

This Project provides opportunities to create community partnerships and connect residents, businesses and public agencies as neighbours and watershed stewards. A knowledgeable community is a powerful community, capable of making constructive changes on a local scale.

Through this demonstration project by LPRCA and its partners, residents can find out how they can help minimize stormwater runoff and pollution through tree planting, rain gardens and de-paving.

As well, businesses interested in stormwater reduction and management can find out about watershed-friendly practices and the benefits associated with the slow release of stormwater runoff.



Long Point Region
Conservation Authority

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Community Partners



RBC
Blue Water
Project™



Tillsonburg
Lions
Club



Glendale
High School,
Tillsonburg

Definitions

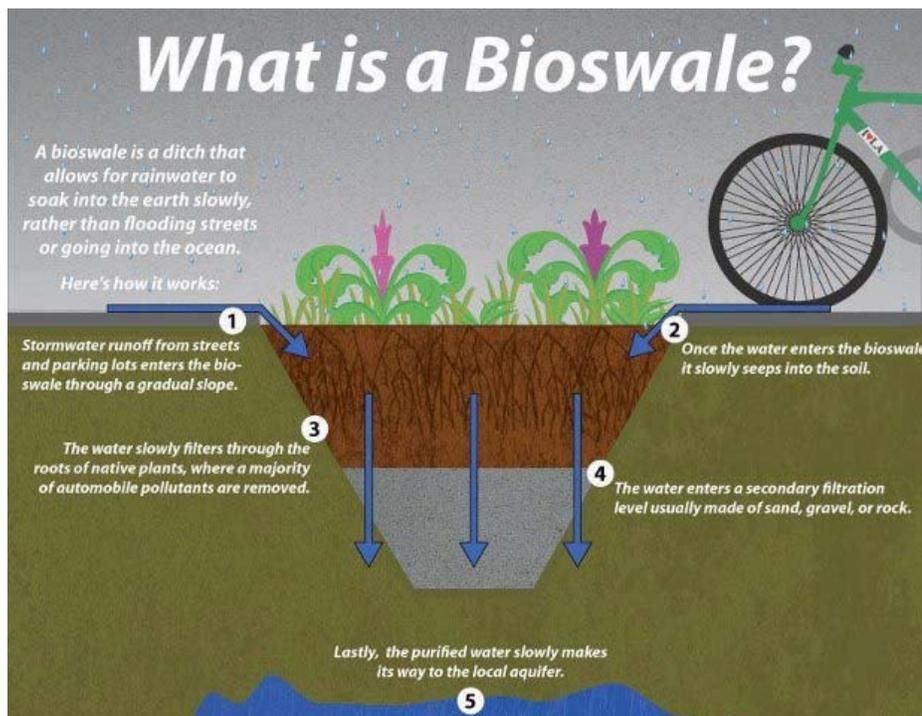
A **bioswale** is a shallow depression created in the earth to accept and convey stormwater runoff. A bioswale uses natural means, including vegetation and soil, to treat stormwater by filtering out contaminants being conveyed in the water.

Low impact development (LID) is a stormwater management strategy that emphasizes conservation and use of on-site natural features, integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrology.

Runoff is water that runs along the surface of the ground into nearby storm sewers or directly into water bodies.

Stormwater is water that accumulates on land (from hard surfaces (e.g. parking lots and sidewalks)) as a result of rain events and storms.

A **watershed** is an area of land that drains to a common point, in most cases, a stream, a river or a lake. Conservation Authorities use these watershed boundaries to help protect Ontario's environment and resources. Watersheds are not based on municipal boundaries but rather on the elevation or the natural contours of the land.



Source: <http://hsbsurfrider.org/news/ocean-friendly-gardens-are-in-bloom>

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