The UTRCA Experience: Sharing SWM LIDs with Our Municipal Partners

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Overview

• UTRCA and SWM LIDs
• UTRCA Survey
• Pilot Projects in the UTRCA Watershed

http://www.bayactionplan.com/stormwater-management/
UTRCA and SWM LIDs

• The UTRCA 2014 survey:
  – Municipalities, consultants, and developers
• Gauge familiarity with SWM LIDs
• Identify barriers:
  – Technical
  – Physical
  – Institutional
Barriers to SWM LIDs

• Technical Barriers:
  – Lack of construction experience
  – Absence of LID guidelines
  – Lack of data on LID

• Physical Barriers:
  – High groundwater table
  – Soil not suitable
  – Contaminated soil
Barriers to SWM LIDs

• Institutional Barriers:
  – No incentives for developers and landowners
  – Absence of supportive policies at municipal level
  – Lack of awareness and knowledge
Subdivision - Sebringville

- Conventional: storm sewers, concrete outlet
- LID: dry bio-swale with perforated pipe, check dams, riprap outlet to Black Creek
- Cost savings $23,515 or 31% ($75,417 vs. $51,902)
Subdivision - Ingersoll

- 41 unit condo development;
- Conventional: storm sewers and retention pond
- LID: bioswales and rain gardens
- Cost savings $88,790 or 41% ($214,668 vs. $125,878), plus 2 additional units

Source: Warren Sinclair Homes
Parkview Drive, Middlesex Centre
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Parkview Drive, Middlesex Centre
Water Balance – Stoney Creek

- 38 km²
- Approximately 60% agriculture, 21% urban
- Increased urbanization since 2006
Water Balance – Stoney Creek

- Pre-development and post-development water balance
- Considered recharge, evapotranspiration, runoff and precipitation under the pre and post condition for 55% imperviousness
- The water balance shows:
  - Recharge decrease: 4,742,843 m³/year
  - Runoff increase: 4,321,719 m³/year
For more information

http://thamesriver.on.ca/low-impact-development/

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