

TRIECA

March 27, 2013

# Municipal Barriers to LID

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Region of Peel

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Transportation & Works Department  
City of Mississauga



## Municipal Barriers to UTD

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# Definitions

- Storm Drainage

Infrastructure intended to drain the land efficiently and effectively through the use of roads, catchbasins, pipes and ditches, etc.

- Stormwater Management

Practices to address the management of water from both a water Quantity and Water Quality perspective

- Major System

Larger precipitation events with greater needs than the typical underground conveyance systems

- Minor System

Smaller precipitation events which are handled effectively through underground conveyance systems

## Municipal Monitoring Support

- National Benchmarking Initiative
  - Performance based metrics
  - Canada wide experience exchange
- S. Ontario SWM Municipal Discussion Group
  - Sharing of municipal experience
  - ReSource group of technical expertise
  - Operations and Maintenance experience
  - Peer assistance





## Who is setting the Bar for “SWM”

- Land Use Planning
  - Policy and Legislation, e.g. Planning Act Places to Grow, Clean Water Act
  - Growth and Intensification
- Development Processes
  - Engineering
  - Subdivision Agreements and Site Plans
  - Severances
- External Approvals
  - Conservation Authorities (e.g. TRCA, CVC, Halton, CLOCA, Lake Simcoe, etc.)
  - Provincial Ministries (e.g. MOE, MNR)
  - Federal Departments (e.g. DFO)

# Operations

## Municipal Practices

- Staffing Levels
  - More work (more frequent and more intensive)
- Technical Staff expertise
  - Supervisory
  - Operational
- Available Equipment
  - e.g. Street Sweepers (brush vs. vacuum)
- Environmental
  - Tree Planting, e.g. Silva Cells





# Maintenance

## Enforcement of Private Maintenance

- Site Plan Agreements
- Servicing Agreements
- Municipal Bylaws
  - Sewer use bylaws
- Administrative Compliance
  - Submission of documentation to support private practices
- Staff to provide Enforcement / Administrative Compliance
  - Submission of documentation to support private practice
- MOE Environmental Compliance Requirements
  - Formerly Certificates of Approval



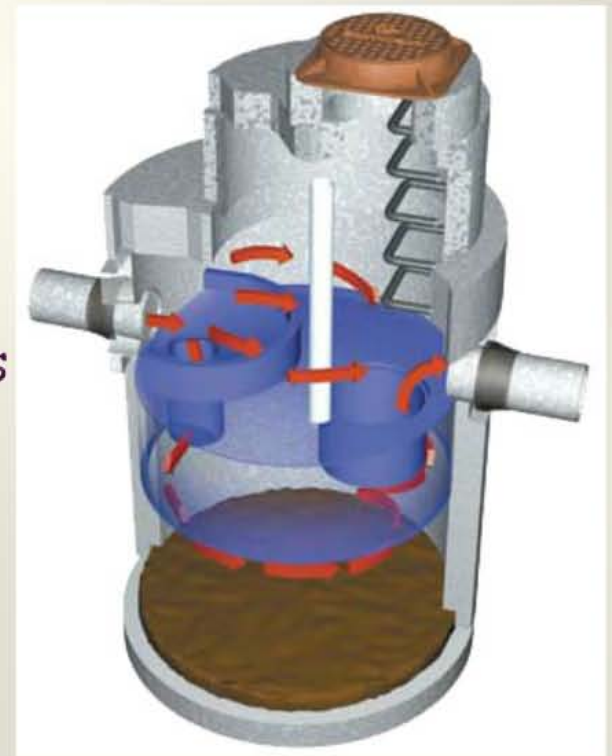
## Example : Oil Grit Separators

IS this a maintenance practice  
or LID tool ? OR BOTH ?

Many Suppliers / models are available

Design - "Is the proper model being placed in  
situations where the infrastructure characteristics  
meet the demands of the tributary service area ?"

Maintenance - "Are these OGS'S receiving timely and  
effective maintenance ?"





# LID and SWM - Our Ongoing Task

"How to identify monitoring requirements and the actions needed to permit Province wide adoption of LID"

- New Design Guidance Available
- STEP Program of Evaluation
- University partnerships
- Showcasing our Successes

# Process

Who is approving?

- Public Works
- Urban Design
- Planning & Design

# Risks

- Listen & RESPOND
- Engaging CA'S
  - Technical review
  - Education
  - Stewardship; BC uses Community Groups to look after LID
- Who's issue is it?
  - Green Roof Yours
  - RWH Yours
  - Infiltration MINE!
  - Bioretention MINE!
  - Permeable pavers MINE!



# Credits

- Recent Ontario models for SW Rates:
  - Richmond Hill
  - Mississauga
  - Kitchener & Waterloo
- Incentives are foundational to SW Rate
  - New development
    - Where no quantity control required, land can be recovered
    - Reduced runoff coefficients
    - DC discounting
    - Modification of parking requirements

# Recommend

- APPLICANTS

- Build in maintenance provisions
- Identify your approver
- Respond to risk management issues

- MUNICIPALITIES

- Monitor!
- Integration of infrastructure with LID
- Pursue internal buy-in to manage risk by working closely with CA's



# Recommendations

- APPLICANTS

- Build in maintenance provisions
- Identify your approver
- Respond to risk management issues

- MUNICIPALITIES

- Monitor!
- Integration of infrastructure with LID
- Pursue internal buy-in to manage risk by engaging staff and working closely with CA'S
- Acknowledge what you will accept...and what you won't
- Acknowledge & implement credit policy as a foundational element to any SW Rate program
- Consider what incentives can be offered for new development





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